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WHILE various temporary publications, and the recent controversy respecting the French revolution, have prevented us from attending to the different opinions on the supposed antiquity of Irish population, and of Irish history, we were not able to examine with sufficient care and precision the volume of Transactions now before us. But, since that subject approaches to a termination, we can at least proceed to those parts of the present work, less connected with the disputed subject. The Philosophical Papers we shall therefore examine in their order.

An Account of the Moving of a Bog, and the Formation of a Lake, in the County of Galway, Ireland. By Ralph Ousley, Esq. M. R. I. A. Communicated by Joseph Cooper Walker, Esq. M. R. I. A.—This singular phenomenon arose from the bursting of a water-spout, whose contents propelled the bog from its situation, and carried it over some neighbouring meadows, where it rested. In this spot it impeded the course of the river Dromore, and from the stagnation a lake was formed: the lake was afterwards incompletely drained, and the stream of the river in some degree restored; but, from the remaining water, a lesser lake still exists.

An Account and Description of three Pendulums, invented and constructed by John Crosthwaite, Watch and Clockmaker, Dublin.—The great peculiarity and merit of the first pendulum are owing to its consisting of two rods; the lengthening or shortening of the first alter the dimensions of the second in the opposite way: the peculiarities of the other pendulums we find it difficult to describe without the plate.

An Account of a new Method of Illuminating the Wires, and Regulating the Position of the Transit Instrument. By the Rev. Henry Usher, D. D. S. F. T. C. D. M. R. I. A. and F. R. S.—This memoir also requires the plate; but Mr. Vince's late work, and particularly Mr. Ramsden's improvement of this instrument, by illuminating it, should be considered at the same time: we transcribed Mr. Vince's account of Mr. Ramsden's

den's method, in p. 67 of this volume of our Journal; for the first suggestion of which he seems to have been indebted to Dr. Usher.

An Essay to improve the Theory of Defective Sight. By the Rev. John Stack, F. T. C. D. and M. R. I. A.—We long since endeavoured to show that the different degrees of convexity of the eye would not account for the phænomena of long and short sight; for these phænomena might be occasioned by numerous other variations in the structure of that organ. Some of these Dr. Stack endeavours to illustrate. He chiefly confines himself to the density of the chrystalline, which it is well known diminishes as the distance from the center increases, to admit of the rays converging in one focus, and to prevent the diversity which would arise from the different refractions of the central and the more oblique rays. Some confusion in the picture on the retina is undoubtedly owing to this cause in persons commonly styled near-sighted, and it is removed by contracting the eye-lids and excluding the oblique rays: the same effect is produced by others, whose iris, from different causes, does not readily contract, particularly in cases where its fibres have been injured by couching. All these people see better thro' a pin-hole pricked in a card. When the difference of density is very little, or when the causes of near or obscure vision arise from organical defects, no glass will relieve. In the former case our author recommends a concavo convex, of a greater curvature on the concave side than on the convex; for then the refraction of the central rays can be made the same, as in the double concave, while that of the more distant rays is diminished. But perhaps the curvature of some of the conic sections, particularly the parabolic, might be more advantageously employed for this purpose. If the foci of the central and more distant rays be on different sides of the retina, our author thinks the inconvenience may still be remedied by combinations of different lenses, like the compound object-glasses of Dollond.

An Account of some Observations made with a View to ascertain whether magnifying Power or Aperture contributes most to the Discerning small Stars in the Day. By the Rev. Henry Usher, D. D. M. R. I. A. and F. R. S.—The eye-glasses of the transit-instrument, in the observatory at Dublin, are of three different kinds, making the magnifying power of the instrument 200, 400, and 600. These systems are constructed on the principle explained by Mr. Ramsden, in a Paper published in the Philosophical Transactions, and may be changed without disturbing the line of collimation, or altering the quantity of celestial spaces subtended by the intervals of the wires. This instrument was therefore employed in the experiments.

experiments. Our author concludes in favour of great magnifying powers, with diminished aperture, and finds that, by means of a considerable diminution of aperture, the polar star may be made 'so distinctly round and large, that the appulse of its limbs to each edge of the wires, as well as the passage of its center over them, may be distinctly observed,' obtaining 'much greater precision in proving either the collimation or meridian.'

An Essay on the Variations of the Barometer. By Richard Kirwan, Esq. M. R. I. A. and F. R. S.—This is an admirable essay; but as it consists so much of distinct miscellaneous observations, it is impossible to give an adequate account of it: indeed if it had not occurred in a voluminous collection, we should more readily have referred the reader to the whole at length. The barometer, Mr. Kirwan observes, was the first instrument that led philosophers to suspect the dogmas of antiquity; which opened their eyes, and taught them the important lesson, *fiat experimentum*. It soon was supposed to teach more than it was capable of performing; for, though the marine barometer will foretel impending storms, that on land will not show the changes of weather very unequivocally, or without the necessity of many restrictions. The various observations on the thermometer we cannot abridge, nor can we refer to common systems, for many of these remarks are new, occur in uncommon works, or have been collected since meteorology has been more attentively studied. The causes to which the variations of the barometer have been attributed are the influence of different temperatures; of the winds, of vapours, and an unequal diffusion of the higher atmosphere. The different temperatures, our author thinks from calculation, cannot have any effect, and his enquiry how far the mass of the lower atmosphere is increased, in proportion to the condensation of its volume, is extremely curious: it was occasioned by a fact which happened at Ponoi, where the difference of temperature was 19° , and the variation of the barometer .9 of an inch. The influence of the winds has long since been given up; and that of the vapours our author thinks indefensible; but this subject is not yet clearly understood. The nature of the elastic vapour formed by evaporated water, and the degree of its elasticity, in different circumstances, is not yet explained: almost at the moment of becoming water it is remarkably transparent. The following calculation, however, grounded on what we know of this fluid, is singularly curious, and contains some facts not generally known. Where our author's weights differ from those of other philosophers, they have been determined by his own experiments and calculations.

From this view of the nature of vapours, and the change they produce in the weight and elasticity of the atmosphere, it is plain that their presence or absence cannot fully account for the variations of the barometer. For if we suppose the atmosphere perfectly dry, the barometer at 30 inches, and the thermometer at 65° , and then a column thereof to be saturated with moisture, its elasticity being increased $\frac{1}{5}$, it will contain $\frac{1}{5}$ of its volume less air than before saturation, since the increase of its elasticity arises from the introduction of a new elastic fluid amounting to $\frac{1}{5}$ of its bulk: and since the weight of the whole volume was at first equal to that of 30 inches of mercury, its weight will now be lessened by $\frac{1}{5}$ of 30 inches, that is nearly 0,59 of an inch. But on the other hand it gained $\frac{1}{5}$ of its volume of vapour, therefore its real loss of weight will be the difference of the weight of $\frac{1}{5}$ of air, and $\frac{1}{5}$ of vapour; but the weight of air is to that of vapour as 12 to 10, therefore the gain here is 0,49 of an inch, which deducted from 0,59, the loss, leaves the loss $\frac{1}{10}$ of an inch. This, therefore, is the variation the barometer should undergo by the passage of a column of air from absolute dryness to complete saturation, a circumstance which perhaps never takes place, as the atmosphere is never absolutely dry; and yet previous to heavy rains we often observe the barometer to fall 3, 4, or 5-tenths of an inch, a fall which we see cannot originate from the saturation of the atmosphere with vapour. Nor is there any proportion between the ascent of mercury after heavy rains and the weight of vapour condensed, for in such cases the mercury frequently rises 3 or 4-tenths of an inch; and yet the heaviest rain seldom produces one cubic inch of water, and the weight of a cubic inch of water is not equal to that of even $\frac{1}{10}$ of a cubic inch of mercury.'

To the unequal diffusion of the higher atmosphere Mr. Kirwan therefore attributes the variations of the barometer, and explains, on this foundation, the various observations with great ingenuity. This cause has undoubtedly the principal, but we suspect not the whole influence, for the reasons already assigned, and the apparently obvious connection of the change in the heights of mercury, and the greater or less proportion of vapour in the air. In support also of our opinion, the late observations of father Cotte, and particularly the regular diurnal variations in the height of the mercury, may be adduced. To our author's theory, that the aurora borealis is owing to the inflammation of the inflammable gas, which rises to the top of the atmosphere, and is inflamed in the northern regions by electricity, various objections may also be made. But we ought to transcribe Mr. Kirwan's arguments, and we cannot lengthen this article by our opposition: the decision must be left to the judgment of our readers.

‘ First. It is certain that inflammable air is produced, particularly between the tropics, by many natural operations, such as the putrefaction of animal and vegetable substances, volcanoes, &c. and that this air is lighter than any other, and consequently occupies the highest regions of the atmosphere; and hence Mr. Saussure and others have found the air on the highest mountains less pure than that on the plains, and its electricity stronger.

‘ Secondly. It is allowed by Dr. Halley and others who have treated of the trade winds, that the highest air between the tropics is thrown off on both sides towards the poles, and of this I think I have given sufficient proof; therefore it is inflammable air that is chiefly thrown off towards the poles.

‘ Thirdly. It is certain that the northern lights are the highest of all meteors, though they sometimes extend pretty low into the inferior atmosphere; and Dr. Franklin’s conjecture, that they proceed from electricity, is at present generally followed by all meteorologists. A detail of their reasons I must omit, as it would occasion too great a digression from the present subject.

‘ Fourthly. It is certain that after the appearance of an aurora borealis the barometer commonly falls. This observation was first made by Mr. Maddison in America; and I have seen it verified in the diaries of the Berlin Academy for 1783 and 1784, the only ones which I have consulted. These meteors are also generally followed by high winds, and usually from the south, all which strongly prove a rarefaction in the northern regions. These lights are much more common in the higher latitudes of North America than in the same latitudes in Europe. Captain Middleton remarks that they appear almost every night in Hudson’s Bay, lat. 59, whereas at Pittsburgh they are seen much more rarely; which confirms my opinion that the superior effluence is more copiously distributed over North America than over the old continent.’

An Account of some Experiments on Wheel-Carriages. In a Letter from Richard Lovel Edgeworth, Esq. M. R. I. A. and F. R. S. to the Rev. Dr. Henry Ussher, M. R. I. A. and F. R. S.—These experiments were suggested by some trials made in 1773, to determine the different powers of high and low wheels in overcoming given obstacles. Each party claimed the victory, and the cause our author endeavours to assign, without however hinting that experiments of this kind, where the line of traction is parallel to the plane on which the carriage moves, are fallacious. In moving a carriage, the weight, he remarks, not only acts in giving velocity, but in overcoming the *vis inertiae*. When an obstacle intervenes, the new direction gives the *vis inertiae* a new power, and it is again to be overcome in the direction. He found that, when a high wheel touched the top of the obstacle at once, it was more

disadvantageous than a low wheel, which rolled up as over an inclined plane; a result evidently connected with the parallel line of traction. Loads, placed on springs, he finds greatly facilitate the drawing. On smooth roads the height of the carriage is, it seems, of inconsiderable importance, and on rough roads disadvantageous: on uneven roads long carriages are preferable, and on roads with deep ruts, short ones. In our author's experiments the usual methods were in some degree varied, but the power acted in the direction of the axle, and consequently in a line parallel to the plane of the wheel's motion.

An Enquiry into the different Modes of Demonstration, by which the Velocity of Spouting Fluids has been investigated a priori. By the Rev. M. Young, D. D. F. T. C. D. and M. R. I. A.—In this enquiry our author examines the different theories on this subject, and the result of the various experiments. The mean velocity with which water spouts from a vessel wholly or in part filled with water to the height of 16 and 12 inches, is less than by the theory in the ratio of 1.6 to 1 nearly.

Observations on Gun-Powder. By the Honourable George Napier, M. R. I. A. Communicated by the Earl of Charlemont, P. R. I. A.—Mr. Napier's essay contains many facts of very great importance, and some hints of considerable utility. It is deficient only in the theory. Our author finds that the most careful selection and the most accurate combination of the materials are sometimes defeated by accident; and powder prepared without so much attention will be of stronger proof than that which cost so much care. This is partly owing to circumstances with which Mr. Napier seems not to be acquainted; and the sea-salt, for instance, which does not appear to impair the activity of powder, has probably, in the preparation, absorbed some pure air from the nitre. The best proportions are, he thinks, three pounds of nitre, nearly nine ounces of charcoal, and three ounces of sulphur. Two ounces of Chinese powder analysed, gave 102 dwts. of nitre, 6 dwts. of charcoal, and 3 dwts. 14 grains nearly of sulphur. It was of a large grain, and angular. It was very durable, and it is remarkable that some powder, made in the reign of Charles II. was found at Purfleet, and examined by our author, when it appeared not materially injured by age *. The mode of combining the materials follows, with some judicious hints for its improvement. Our author thinks glazing the powder renders it more durable, and he finds the dust of pow-

* This is attributed by Mr. Napier to the employment of home-made nitre.

der much more powerful than has been suspected. On the whole, this essay deserves very particular attention from the manufacturers of this article, and particularly from government, though since Mr. Napier's time, and even since the last war, the manufacture is greatly improved.

Observations on the Magnetic Fluid. By Captain O'Brien Drury, of the Royal Navy. Communicated by Colonel Vallancey, M. R. I. A.—Our author's observations, though short, are of great importance. The compass-needle, he observes, loses by time its power; and from this cause many errors in reckoning arise. This is, he thinks, prevented by casing the needle with soft iron, or arming it at the poles by pieces of this metal in its soft state.

A critical and anatomical Examination of the Parts immediately interested in the Operation for a Cataract; with an Attempt to render the Operation itself, whether by Depression or Extraction, more certain and successful. By Silvester O'Halloran, Esq. M. R. I. A. Honorary Member of the Royal College of Surgeons in Ireland, and Surgeon to the County of Limerick Hospital. Communicated by the Right Hon. the Earl of Charlemont, P. R. I. A.—After a short examination of the state of opinions on this subject at different periods, our author proceeds to a description of the eye. There is, he contends, no posterior chamber of the aqueous humour, but the crystalline is close to the iris, inclosed in the duplicature of a membrane arising from the ligamentum ciliare, and resting in a socket in the vitreous humour. The iris is attached to the ciliary circle, he thinks, above and below, but at either angle is a little drawn down, assuming by this means some convexity. The description of the iris we shall select.

With other anatomists, I always imagined that this last was a real continuation of the choroides; I am now satisfied that it is not, and that the assertion is very nearly as absurd as to affirm that the diaphragm is a continuation of the pleura, though the choroides adheres pretty closely to the sclerotica, near the insertion of the optic nerve; yet from thence to the ligamentum ciliare, the correspondence is mostly kept up by blood vessels and nerves passing from one to the other. Here a close adhesion of the choroides to the sclerotica commences. At the middle of the superior and inferior parts of the eye, it begins at the very edge of the sclerotica, bordering on the cornea transparens, but from thence to the two canthuses it gradually retires back on the sclerotica; the adhering part from the choroides, called ligamentum ciliare, is truly tendinous, and forms an expansion or covering to the iris; within side this are groupes of blood-vessels from the arterial circle of the iris, proceeding in nearly straight lines, as well to the pupilla as to the ci-

liary ligament. To prove that the iris is totally different from the choroides, and truly muscular, it is only necessary to observe that the inside of the ligamentum ciliare answering to its breadth, is fleshy and thicker than any other part of this body; its fibres proceed radiated, or nearly so, from thence towards the iris. Here the covering of the anterior part of the vitreous membrane commences, and so closely is this attached to these radiated fibres, that their impressions are sunk deep into it, and may be called the sulci of the processus ciliares. This first range of fibres on the inside of the iris is in a human eye about the breadth of a line; a kind of tendinous narrow and circular band closes this phalanx, and from thence proceeds a second row of radiated fibres, thinner than the first; these also adhere and leave their impressions on the vitreous membrane; and that part of the iris which forms the pupilla is still finer than the last-mentioned, rests on the chryalline, and is quite free from any adherence, by which means it contracts or dilates in proportion to the vicinity or distance of objects. Thus the convexity of the iris follows nearly that of the cornea transparens, and is occasioned by the protuberance of the chryalline; so that the idea of a posterior chamber of the aqueous humour must be for ever banished; nor is that of circular fibres belonging to the iris better founded in truth and anatomy. These last we are constantly told were formed for the purpose of contracting, as the radial ones were for expanding, the pupilla; but not to advert to a fact, which is, that the state of quiescence in the pupilla is its dilatibility, which is evident, because when asleep or in a state of inattention with respect to objects, we constantly find it so; I shall just observe that there are none but radial fibres through the whole internal surface of the iris.'

There is no such thing, in our author's opinion, as an adherent cataract; and the phænomena, which occasioned the suspicion, are owing to the resistance of the capsule, and the return of the chryalline, when depressed, in consequence of its elasticity. Our author gives very judicious directions for depressing the cataract; but we should always prefer the extraction. When depressed below the vitreous humour, the chryalline, he observes, wastes and is destroyed; when it escapes in the aqueous humour, it continues unaltered; but, in this point, he is in opposition to the general analogy of nature, and to the observations of able surgeons. In the remarks on extracting the chryalline, he is a little too severe on the authors who preceded him in this branch; though his own method is not quite unexceptionable. At the same time we may add, that it is sufficiently safe, and generally certain.

An Account of Experiments made to determine the Temperature

perature of the Earth's Surface in the Kingdom of Ireland in the Year 1788. By the Rev. William Hamilton, F. T. C. D. and M. R. I. A.—The mean temperature of the sea-coast, from north to south, is from 48° to $51^{\circ} \frac{2}{5}$, making a difference of about one degree of the thermometer for every degree of latitude. The medium temperature, at the height of 206 feet, the highest ground of the 'general surface' of Ireland, is about 48° . In Londonderry the mean is 48° ; in Dublin 51° ; in Cork 53° . From this view, Ireland seems hotter than England. On the surface, our author remarks, the diurnal variations of temperature are observed; at the depth of 30 or 40 feet, the monthly variations only; and, at 70 or 80 feet, the annual variations are alone sensible.

Observations on Coal-Mines. By Richard Kirwan, Esq. M. R. I. A. and F. R. S.—As ores of different kinds are now carefully sought after in Ireland, coal becomes necessary to render the mines productive. Mr. Kirwan has therefore collected the different circumstances which make the existence of coal probable, shows that it is chiefly to be sought after in the secondary hills; and gives an account of the strata which lie over the coal in different places, both in these islands and on the continent. The information is useful, but not particularly new.

Observations on the Properties commonly attributed by Medical Writers to Human Milk, on the Changes it undergoes in Digestion, and the Diseases supposed to originate from this Source in Infancy. By Joseph Clarke, M. D. M. R. I. A.—Our author quite overturns the whole system of children's diseases, and our opinions respecting milk. He shows from experiment, that the human milk contains scarcely any coagulable matter; that it cannot be coagulated by the usual additions, nor even by an infusion of a child's stomach; that the apparent curds, vomited by children, is the cream, which is often separated in the stomach, as it is, like the cream, of a different colour soon after delivery, and when the colostrum ceases to flow; that the green colour of children's evacuations is not owing to an acid. All these positions are supported by great probability; but we have seen them, or we think we have seen them, contradicted by the appearance of diseases and the effects of medicines. Our author's abilities and attention are too considerable in our eyes to induce us to suspect that he has been led away by a hasty system; and we cannot, on the other hand, easily give up opinions apparently well supported. We must leave the subject then to future examination.

Eclipse of the Sun, observed June the 3d. 1788, by the Rev. Dr. Usher and others. Communicated by the Rev. Henry

Henry Usher, D. D. F. R. S. and M. R. I. A.—The beginning was at $19^h 3' 42''7$; the end at $20^h 25' 38''8$. A distortion and discolouration of the spots, as the moon's limb approached them, was observed at a distance too great to be accounted for by the inflection of light, and seemingly owing to a lunar atmosphere.

An Account of an Aurora Borealis seen in full Sunshine. By the Rev. Henry Usher, D. D. F. R. S. and M. R. I. A.—The tremulous motion of the stars, the usual effect of an aurora, was observed in the day-time, subsequent to a very bright aurora borealis in the preceding night. Light white coruscating clouds were also observed in the usual place, the pole of the dipping needle: it is probable, therefore, that these streams also occur in the day. If, according to Mr. Kirwan's supposition, this phenomenon results from the inflammation of inflammable air, our author supposes the unsteadiness may be owing to the water deposited forming vesicular vapour. As inflammable air seems also sometimes to contain iron, the unsteadiness of the needle at this time may be owing to its deposition. The highest point of the luminous arch preceding (and we may add following) the coruscations, is indeed always in the magnetic meridian. But these are conjectures, perhaps reveries. It is more remarkable that, in the list of aurora borealis, collected by M. Mairan, there is a chasm about the middle of the last century of about forty years, nearly in the middle of which the variation of the needle at Paris was 0. As this appearance seemed to diminish with an eastern variation, it increases with a western.

The Papers on Polite Literature and Antiquities must be the subject of another Article.

(*To be continued.*)

Memoirs of the Literary and Philosophical Society of Manchester.
Vol. III. 8vo. 7s. Boards. Cadell. 1790.

THE Manchester Society continues its instructive and agreeable meetings; and the papers offered, as we had occasion to remark in our examination of the former volumes, are rather calculated to produce interesting conversation, than to add greatly to the stock of science. In this volume, however, we perceive many judicious remarks and some truly important essays.

The duty designed to be imposed on the cotton of Manchester and the neighbouring manufactures, led Dr. Percival to the Inquiry into the Principles and Limits of Taxation, as a

branch

branch of moral and political philosophy. It is not a subject wholly untouched, and if our author has not greatly added to it, he has cleared away some of the impediments, and presented the whole in a pleasing form. The obligation to pay taxes results, he thinks, from allegiance due to the sovereign power for protection. It is a voluntary compact made by our representatives, and to evade the tax, is an indirect invasion of our neighbours' property, who must supply the deficiencies. But in order to give the tax full and complete validity, 'it should be a levy made on the community by *lawful authority*, according to the *prescribed forms*; in an *equitable mode and proportion*, and for the *public weal*.' In these more enlightened times, we think the definition of a tax might have been more short, and it might be styled the voluntary contribution of the nation apportioned by the executive power, to be employed by that power for the welfare of the whole. Dr. Percival, in the latter part of his essay, adds some observations on excessive, irregular, or too inconsiderable taxes. Some imposts are supposed to be necessary in the political body, as some means of giving an artificial tension are necessary to the natural body, to enable it to make considerable exertions. He mentions the effects of the imposts of the Sforzas on the manufactures of the Piedmontese; and in our own kingdom, the heavy duties on unwrought glass have occasioned the exertions of our artists in cutting and polishing it. In these arts we have long since had no rivals; and in general, where duties increase the efforts of ingenuity and labour, so as to make a given quantity of rude materials of greater value, they will add to, rather than diminish, the prosperity of a state. The taxes on articles of necessity should be no more than sufficient to excite continued industry; and the excise, we think with our author, is inconsistent with the spirit of the constitution and the liberties of an Englishman.

Dr. Ferriar's *Essay on Popular Illusions, and particularly Medical Demonology*, is a very entertaining one. It shows how far in the darker ages superstition and terror could give to airy nothings embodied forms and 'local habitations.' On the whole, it is a sufficiently complete history of the eccentric wanderings of the human mind, so far as regards the subjects mentioned; but as we cannot abridge an history of detached facts, we shall select a specimen of some curiosity.

'The present advanced period of the eighteenth century has produced a learned, an elegant, and what is still more, a fashionable theorist, in support of the doctrine of apparitions; and this subject is perhaps to owe more to the present than to the former Lavater of Zurich. This writer, generally interesting and instructive,

structive, often enthusiastic, but always amiable, may possibly give a turn to the fortune of an opinion which most persons are rather anxious to destroy than able to confute. M. Lavater applies in some measure the doctrine of the transmission of spirits to the theory of spectral phenomena. L'Imagination, says he, excitée par les désirs de l'amour, ou échauffé par telle autre passion bien vive, opère dans des lieux et des temps éloignés. This is exactly the doctrine of Ficinus, lord Verulam, and other sympathetic philosophers of the last century. But Mr. Lavater has applied this position in a manner, I think, entirely new, in supposing that the imagination of a sick or dying person, who longs to behold some absent friend or relation, acts on the mind of this absent person so strongly, as to produce an idea of the presence of the sick or dying man. This will appear more clearly and more advantageously in his own words. *Un malade, un mourant, ou quelqu'un qui se trouve dans un peril imminent, soupire apres son ami absent, apres son frere, ses parens, son epouse : ceux-ci ignorent sa maladie, ses dangers ; ils ne pensent point a lui dans ce moment. Le Mourant, entrainé par l'ardeur de son imagination, perce a travers les murs, franchit les espaces, & aparait dans sa situation actuelle—en d'autres termes, il donne des signes de sa presence qui approchent de la réalité. Une telle apparition est elle corporelle ? rien moins que cela. Le malade, le mourant languit dans son lit, & son ami vogue peutetre, en pleine santé, sur une mer agitée : la presence réelle devient par consequent impossible. Qu'est-ce donc qui produit cette espece de manifestation ? Quelle est la cause qui agit dans l'éloignement de l'un, sur les sens, sur la faculté visuelle de l'autre ? C'est l'imagination—l'imagination éperdue d'amour & de désir—Concentrée, pour ainsi dire, dans le foyer de la passion.* This hypothesis would explain other pretended appearances ; the effects of an evil eye, the curses of a longing woman, and the success of the operations with waxen figures ; but I do not see how it explains the apparitions of the dead, (for death terminates all bodily affections, ultra, neque curae neque gaudio locum)—without having recourse to the other theories already mentioned. But if it be allowed that the imagination of another can produce so wonderful an impression on the mind, how much more easy is it to conceive a man's own imagination imposing delusions on him ? There are many moments when the operations of fancy are extremely fallacious in healthy men ; and in nervous diseases, where the patient appears but little altered in the strength of his faculties, there is much transient delirium and much false imagination. When the fancy is once set in motion, old impressions generally revive, and those of friends and relations rush upon us ; the caprices of association in some persons are unaccountable, and many may cry out with the poet, *delirando io vivo.*'

Mr. Bennet's Observations on Attraction and Repulsion,
and

and the waving motion observed in vibrating a glass jointly filled with oil and water, are ingenious. The latter is not so much owing to the difference of specific gravity of the fluids, as to the upper part of the water being farther distant from the centre of motion, and consequently having a greater centrifugal force. The experiment will succeed with water alone; but with two fluids the phenomena seem to be more conspicuous. The explanation of the attraction and repulsion of cork balls, either as both are dry, or as one is wet, our author attributes to the attraction of the intervening fluid, for a dry ball depresses the water, and round a wet one it is raised: in general, Mr. Bennet seems to think every condensation effected by the escape of an intervening fluid passing through the glass which holds the condensed fluid; for there are many which glass will not contain.

In an essay not immediately following the article of Mr. Bennet, Mr. Banks, a lecturer in natural philosophy, attempts to explain the same phenomena pretty nearly on the same principles, the difference of pressure in consequence of the ball pressing on the water, and the side of the vessel attracting the water. Mr. Bennet employs the language of attraction in the fluid, but as action and reaction are equal, the variation is not very considerable. The explanation of each author is far from being very clear or explicit.

The Essay on the Dramatic Character of Massinger is a very entertaining one. In the dramatic scale, Massinger comes near to Shakespeare. The genius of Fletcher seems occasionally more various, but his language is scarcely more rich, exuberant, or poetical. In invention there is no great superiority in the associate of Beaumont. Each, however, succeeded Shakespeare, and their torches were lighted at his poetic fire. Our author expatiates at some length on the merits of Massinger, and has carefully kept his faults from view. Ben Jonson excelled Massinger only in comedy.

From the Observations of Mr. Henry on the Bills of Mortality of Manchester and Salford, (two townships included in the common appellation of Manchester) the population appears gradually increasing, and he thinks that the number cannot be less, at present, than 55000. His multiplier, from the number of births, is $26\frac{1}{2}$, and from the deaths $30\frac{1}{2}$. It is probable, from the other facts mentioned in this paper, that the latter should be at least $32\frac{1}{2}$.

In Mr. T. Henry junior's Conjectures relative to the Cause of the Increase of Weight acquired by some heated Bodies when cooling, the experiments of M. Buffon, Dr. Roebuck, and Mr. Whitehurst, are mentioned. In Buffon's experiment, the mass of iron which was near fifty pounds, probably from its heat, expanded and lengthened the end of the beam under which it was.

was. This, or some other cause of fallacy, probably occurred, since the increase of weight in other experiments is during the cooling, evidently from air absorbed in consequence of some degree of calcination.

Mr. Henry next relates an instance, where in advanced age a person became short-sighted, evidently from reading small print in an unfavourable light. A cause of this kind may undoubtedly produce the effect at any period of life.

Dr. Rush gives us an interesting and pleasing picture of the Progress of Population in Pennsylvania. The first settler may perhaps kill the trees, and build a hut to shelter him from the weather; without principle or reflection, when pressed on by neighbours, compelled to defend his crops by hedges, or to contribute to the support of civil government or religion, he flies farther into the woods, and begins his labour again, to avoid restraint. The second settler on this farm proceeds farther, adds to the comforts and conveniences of it, increases the number of the productions, but seldom completes his work. The third settler forms the solid substantial farmer, the sinew of the state, its best ornament and defence. The migration of the first unreflecting settlers is generally to the south, where labour is less and provisions more easily acquired.

The essay which follows is by Dr. Percival, on the Operation of Medicines; but we noticed it in our examination of the last edition of his Essays.—Dr. Ferriar's article 'on the Vital Principle' is an elaborate one. He contends that there is no distinct principle of life, independent of organization and nervous power on the one hand, or of a soul, if an immaterial principle be admitted, on the other. The history of opinions on this subject is curious and accurate; and in the conclusion Dr. Ferriar seems to be correct. Indeed, when authors speak of life, if they distinguish it from nervous excitement, or to come nearer, from irritability, they are generally confused and often contradictory. Our author is in a little error, when he supposes that there is no nervous energy distinct from the brain. In many instances, there is probably an energy in separate nerves, particularly when any tinctitious substance is observable in them, or in any of their larger trunks.

Mr. Roscoe's Essay on the comparative Excellence of the Sciences and Arts, is of no very great importance. The knowledge of our duty, and the various moral obligations arising from a due consideration of our different connections, forms the first class: natural philosophy, including metaphysics, the second only: works of taste the third. If metaphysics had been in the first class, we think he would not have erred so much as to distinguish the moral sense, the rational faculty, and the sentimental faculty, as different: they are only different, as employing

ploying the same exertions of the mind, perception, and judgment, on dissimilar subjects.

The Cretins of the Vallais are a short deformed race, whose understanding is very limited, whose constitutions are weak, and lives short. They inhabit a spot in the neighbourhood of the Alps, exposed to the exhalations of the Rhone, and to the reverberated heat from the mountains: that their situation is the cause of this mental and corporeal imbecility, is probably from those who remove to the spot experiencing a similar change, and those who are taken away recovering some degree of understanding. The Cretins are evidently degenerated men, as the Albinos and the Dondos of Africa and America, and the Kakerlaks of Asia. It will probably be in vain, therefore, to remove the defect, but by altering the manners, and if possible their situation.

Mr. Hey's Description of the Eye of a Seal is worth transcribing, in some of its most essential particulars.

‘ The form of the eye, when deprived of the adipose membrane and muscles (in which state I received it) was quite globular, measuring three inches and three quarters in circumference.

‘ The scleritis was rather thinner than that of a sheep; but diminished gradually, as is usual, from the posterior part of the eye, to its junction with the ciliary ligament. From the great breadth of the ciliary ligament, which measured a quarter of an inch, the thinnest part of the scleritis was not contiguous to the cornea, as in the human and sheep's eye, but surrounded the middle of the eye. So that the outer membrane, or coat, grew first gradually thinner, to the middle of the eye, and then became suddenly thick, continuing so to its junction with the cornea.

‘ The cornea was horizontally oblong, the vertical diameter being about .75 of an inch, while the horizontal was .85; so that the horizontal diameter exceeded the vertical by one-tenth of an inch.

‘ The choroid coat adhered very firmly to the scleritis. It was black on its posterior surface, but grey on its anterior.

‘ The iris was black on both its surfaces, and was evidently a continuation of the choroides. The pupil was remarkably small, forming an aperture no larger than might be made by the puncture of a middle-sized pin. The figure of the pupil, before the iris had been touched, was that of an equilateral triangle.

‘ The crystalline humour was nearly spherical; if there were any deviation from a sphere, it was by approaching to the figure of an oblate spheroid. The ciliary processes were attached to the equatorial part of the crystalline humour, if I may be allowed the expression.

‘ At first sight, the optic nerve seemed to be inserted in the axis of the pupil; but, upon making a longitudinal incision through the nerve, quite down to the retina, I found that its insertion was on the inner side of that axis, as in other animals. The substance which surrounded the optic nerve was fibrous, and spreading itself out every way as it approached the scleritis, was continued into the substance of that coat. Indeed, the scleritis seemed to be formed by the fibrous substance which accompanied the optic nerve; only, after this substance had diverged a little way from the nerve, it became compact, as the sclerotic coat usually is. The optic nerve was somewhat enlarged as it passed through the scleritis, and was again contracted in its passage through the choroides. In the former part, the diameter of the nerve was .08 of an inch; in the latter .06.

‘ Upon measuring carefully the different arcs of the circumference of the eye, taken from the optic nerve to the center of the pupil, it was found that the nerve was placed at the distance of .11 of an inch from the axis of the pupil. And as the axis of the pupil must be in the center of that area on which the picture is formed, the diameter of the area on which a picture may be formed in the eye of a seal is .22, or nearly a quarter of an inch, of the retina, excluding the breadth of the optic nerve.’

If the retina, at the insertion of the optic nerve, be insensible, its smallness will not greatly impede the distinctness of the object.

Dr. Falconer’s Observations on the Knowledge of the Ancients respecting Electricity, are very curious: two facts we may particularly mention. He remarks and transcribes the passage from Scribonius Largus, that the torpedo was employed by the ancients for the pain of the head and the gout. He renders it probable also, from the suggestion of an ingenious and learned gentleman, that Numa, in consequence of some accident, was acquainted with the influence of metallic points for drawing down the electricity of the clouds; and Tullus Hostilius imitating it imperfectly, or from the violence of the storm, was killed. The passages in support of this opinion are in Diodor. Sicul. lib. v. p. 219. Rhodomanni. Plin. lib. ii. cap. 53. Ovid. Fastor. lib. iii. 327. Liv. lib. i. cap. 31. Dionys. Halicarnass. p. 176. ed. Sylburgi. These authorities are extracted from Dr. Falconer’s Paper. We have not been able to examine them.

Mr. Barrit describes some supposed Druidical Remains near Halifax in Yorkshire. They appear, however, to be natural objects, though, as we formerly observed, the Druids may have taken advantage of remarkable natural appearances to impress their own superstitions more deeply. The whole of the con-

nection of these rocks with the Druids is imaginary. There is scarcely in any county any pure water not famous for sore eyes, without the influence of Druidical superstition.

The Ancient Monument in Huln Abbey, described by Dr. Ferriar, is, probably as he says, that of De Vesey, lord of Alnwick. If the plate is, however, accurately copied, does not Dr. Ferriar see that the outward circle is a rude representation of the flat part of the wheel on which it runs, by a person who had no knowledge of perspective?

Mr. Sharp's *Essay on the Nature and Utility of Eloquence*, contains not only an accurate discrimination of eloquence, but in some measure a defence of it; on the whole a pleasing and ingenuous one.

Dr. Rotheram next considers some properties of a Geometrical Series, explained in the solution of a problem formerly thought indeterminate, viz. the sum of $x rr rr^2 rr^3 rr^n-1$.

Mr. Wood's explanation of Halos is a geometrical investigation, on the principles of Newton, and he finds the phenomena explicable on the Newtonian System.

Mr. Henry's very ingenious and elaborate Paper on the Art of Dying, is divided into three parts. These contain some observations on the nature of wool, silk, and cotton, as the objects of the dyers' art, the different preparations either for imparting or fixing the colour, with remarks on the theory, particularly exemplified in the explanation of the Turkey red. We had occasion in our LXIXth volume, p. 396, to give some general observations on the theory of dying; and the great difference in the opinions of our author consists in his still, in some degree, adhering to the doctrine of the colouring-matter being fixed in the pores of the dyed substance. From the various appearances, we think a superficial solution of the wool, cotton, or silk, takes place, and the transparent particles are fixed on the white body by means of this operation. Mr. Henry comes very near this opinion when he speaks of the attraction of the body dyed to the colouring particles; but on this subject he is not sufficiently explicit. In the explanation of the French term, *mordants*, he is not, we suspect, very correct. We have understood the term not to mean bases in general, but that fluid which fixes the colouring particles on the body, and particularly in the cotton and calico-printing gives a lasting colour to the fluid with which the pattern is impressed, and which, when impressed, leaves scarcely an apparent vestige. In the time of our studies in the print-field, the substances were said to *bite* in the colour; but the language and the customs may be now altered. In general, this paper contains several valuable observations on the process of dying, and many important chemical researches.

March, 1791.

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Mr.

Mr. Cooper's 'Observations respecting the History of Physiognomy' follow, in which this ingenious author traces the progress of the science, or rather the pretensions to the art, from the time of Aristotle to that of Lavater. From 'all such reading as was never read,' he adduces different remarks and facts of importance, and considers physiognomy in its most extensive sense, which we explained in our review of Lavater, viz. the judging of internal qualities from external form; but this sense renders the science too intricate, and includes many other acquisitions. The judicious physiognomist will do well to contract it. In the Appendix, our author shows the connection of physiognomy with the doctrine of signatures, with astrology, and other occult sciences.

The Glory described by Dr. Haygarth, was a kind of halo in a luminous cloud, which reflected the author's shadow. This luminous cloud was, according to the account before us, a fog, or a mass of vesicular vapour, in part condensed by cold. This gave it substance enough to reflect the shadow, and to refract the rays of light which fell on it obliquely round the head, in the appearance of concentric luminous circles.

Mr. Willis communicates some Experiments, in which he has fused Platina. The metal must be purified and put on a bed of charcoal in a small crucible. Various minute circumstances must be attended to, to ensure the success, which was not, on the whole, considerable. The fusion was almost always imperfect, and some variations not yet sufficiently ascertained, seemed sometimes to prevent it.

Mr. Cooper's Propositions respecting the Foundation of Civil Government, are only the present fashionable doctrines in an accurate comprehensive form. We are much pleased with the clearness and precision with which these doctrines are delivered, without being able always to join in the opinions of the author.

This gentleman's Essay on the Art of Painting among the Ancients displays much learning, judgment, and taste. If this volume could have been considered more closely, we should have given an extensive analysis of the Paper before us. It is improper to pay a disproportionate share of attention to it, and there is the same impediment to our enlarging on this Essay which prevented us from analysing the others more minutely, viz. that it is a collection of facts from other writers. Mr. Cooper begins with opposing those authors who supposed the ancients used only four colours. The painters who preceded Cicero and Pliny, and were in their estimation, ancients, probably used no others, and to this was owing the chasteness of their colouring; but the painters nearer to the period of the authors quoted, certainly used more than four, as Mr. Cooper has

has clearly shown. Correctness of outline, or more generally, design, the ancient painters seem to have been well acquainted with; and from Pliny it appears, that they understood the method of foreshortening their figures. In expression also they seem to have been skilled. The veil was thrown over the countenance of Agamemnon, in Mr. Cooper's opinion, not from the inability of the artist, but chiefly because the 'king of men' was thus represented by Euripides. Other arguments in defence of Timanthus are also adduced, but we shall step on to our author's conclusion respecting the comparative merit of ancient and modern painters.

'Upon the whole therefore, I think, with respect to colouring, as employed upon *single figures*, that as the ancients were fully as competent to judge of excellence herein as the moderns; as the expressions of the ancient connoisseurs are very warm in praise of the colouring of many of their painters; as they appear also to have attended very much to the art of colouring; and moreover, as probable evidence will be adduced that they attended to miniature painting, a considerable degree of merit may be allowed them in the use of the colours they possessed.'

'The duration of the art among the ancients and moderns, seems nearly equal: in number, the modern artists I think are superior. Some advantage however, both in the preparation and the number of the modern colours, and (perhaps *) the introduction of oil painting may possibly have enabled the moderns to excel their predecessors in some small degree; but I think the evidence will not permit us to rate that superiority very high. With respect to colouring, as a whole, and independent of the other parts of the picture, it seems probable that the ancients did understand the effect of it: but we have not sufficient reason to conclude that they attended so distinctly to this branch of the art, or attained to the same degree of perfection in the practice of it, as many of the moderns have done. It must, however, be observed, that we can judge of the merit of the ancient painters from two species of evidence alone, viz. *discovered antiquities*, and *expressions in the works of ancient authors*, both of which are extremely defective: it is allowed by every skilful person who has viewed the remains of ancient paintings, that none of them seem to be the performances of superior artists, notwithstanding much merit in the design and accu-

** The ancient colours in fresque seem to stand better than the modern oil colours. Plutarch, in his life of Aristides, mentions the paintings in the temple of Minerva, which in his time (between five and six hundred years afterwards) retained their full lustre. Montfaucon, in a passage already noticed, mentions the colours of an ancient cieling, painted in fresque, which continued *en grande vivacite*. So also does the grand painting in fresque of the battle between Constantine and Maxentius, designed by Raphael, and painted by Julio Romano.'

racy in the drawing, which indeed seems to have been habitual to almost every ancient artist. The best among these paintings (according to sir Joshua Reynolds) "the supposed marriage in the Aldrobandine palace," is evidently far short of that degree of excellence undoubtedly implied in the descriptions of ancient authors, and which from them we are fairly led to expect.

Still more defective, if possible, is this last species of evidence: for we have no direct treatise remaining on the subject by any of the ancients, although many were composed by their artists. The passages from which we are to decide, are either the cursory remarks of writers not expressly treating on the subject of painting, or the descriptions of those who, at best, can rank but as amateurs of a fashionable art. From these indeed we may pretty safely assert the degree of excellency which the passages imply, but we should reason very inconclusively were we to deny them any higher or any other merit than appears to be strictly contained in these scattered observations. Let any one for a moment place the modern painters in his mind, in the same situation as the ancients, and he will quickly decide on the truth of these remarks.'

" I think sir Joshua Reynolds rates the merit of the ancient artists whose paintings remain, somewhat too high in the scale of comparison. Nor do the accounts of the places where these paintings have been found, warrant the supposition that they were thus ornamented at any considerable expence public or private. The generality of them consist of single figures; some of them of two or three figures, generally relieved by an uniform ground; and, except in (comparatively) a few instances (such as the Aldrobandine Marriage, the Sacrifice, the Nymphæa, and a few paltry landscapes) evidently designed as mere reliefs to a compartment, and answering, as near as may be, the stuccoed ornaments in our modern rooms. Nor do any of them seem the works of artists equal in their day to those at present employed on the painted ceilings of private houses.

" That some technical knowledge of the effect producible by masses of light and shade was possessed by the ancients, appears to me indubitable from the passages adduced; to what extent it was carried cannot now be ascertained. In all probability they were much inferior in this respect to the moderns; otherwise, although much science of this kind could hardly be expected from the trifling performances that remain, much more would have occurred on the subject, more largely dwelt on and more preeisely expressed, among the observations of ancient authors on the best paintings of the ancient masters.'

" In the composition of a picture, Mr. Cooper thinks the ancients not very eminent; in the costume their improbabilities and absurdities

Furdities were numerous ; and in this respect he reprehends also many of the moderns. Our remarks on sir Joshua Reynolds' picture of Mrs. Siddons, as the Tragic Muse, we are well pleased to see confirmed by a connoisseur of Mr. Cooper's taste and judgment. Perspective the ancients were certainly acquainted with, though they seem not always to have attended to it. Their scenes, which in the lower empire *only* we believe were moveable, we may suppose to have been generally painted with some regard to this art. In landscapes they were probably deficient, and of comic paintings few examples remain. Mr. Cooper concludes with some remarks on the different modes of painting employed by the artists of antiquity, and some little notice of the amateurs or gentlemen-painters, who were not professional artists.

The aerated barytes is found, we perceive from Mr. Watt's account, in Anglezark Mine, in Lancashire, not on Alston Moor, as Dr. Withering supposed. It is the matrix of a vein of galena, or blue lead ore, mixed as usual, with black jack and martial pyrites. Aerated barytes was probably long since known in that country. It is perhaps the spar mentioned by Dr. Leigh, and was then, as well as since, used to kill rats. This poisonous quality was supposed to be owing to a mixture of arsenic, but the same author, Mr. Watt, junior, found it, when pure, very poisonous to animals. It seems to act like the metallic poisons. This quality, and the solubility of aerated barytes in water, ought to be carefully examined, since the earth, if it can be easily procured, may be very beneficial in many arts. When native the air cannot be wholly expelled by any heat, and that, which it loses, is soon again recovered from the atmosphere. When precipitated from muriatic acid by a mild alkali, the air, which it then holds, can be easily separated by heat.

We have mentioned in this cursory manner the subjects of all the articles contained in this volume. It is much more valuable than the former ones ; and as the essays are well calculated to suggest interesting and entertaining topics of discourse, so the philosopher, the chemist, and antiquary, will find it a very amusing and instructive companion.

The History of the Reign of Henry II. and of Richard and John, his Sons ; with the Events of the Period, from 1154 to 1216.
By the Rev. J. Berington. (Concluded from Vol. LXX. p. 502.)

IF we have differed from Mr. Berington it was from conviction, in consequence perhaps of viewing the same facts with different eyes, or drawing from sources which relate them with different colourings. Habits, education, and political

views may have contributed to diversify our opinions and conclusions: we wish only to say, that we do not wantonly and without apparent reason differ from an author who has in various publications afforded us instruction and entertainment. In our former articles, we trust that we have shown that our opposition to Mr. Berington is not merely the consequence of those meaner motives, of which neither author nor critic could, without a blush, own the influence.

We have more than once had occasion to mention the character of our first Richard, and to wish that he had found an impartial historian. From our researches into the historical records of the East, as well as our own country, we had formed a high opinion of his talents as a politician, a warrior, and legislator; nor is it without regret, that we see his abilities in the last character so slightly noticed by Mr. Berington. The laws of Oleron, the foundation of all the European naval codes of the present moment, ought not to have been overlooked by the historian of Richard, and the author of these laws should not have been stigmatised as the savage warrior. While we are on this subject let us anticipate a little the narrative, and introduce a work which was within the reach of the historian: we mean the *Life of Salah'addin*, by Bahao'ddin, translated into Latin by Schultens. It is a work, so far as regards Richard's conduct in Palestine, of considerable authority, since Bahao'ddin was occasionally an ambassador from the sultan to the king of England, and seems to have occasionally derived much information from Al-Malec Al-Adel, the sultan's brother. Though he styles Richard the 'accursed,' on account of the massacre of Moslem prisoners, after the siege of Ptolemais, he afterwards admits that the crescent had never a *more politic*, or a more warlike enemy. It may be worth while also to transcribe the answer of a Turk, reported by Winisauf, who followed Richard to Palestine, though we must allow that the authority is not equal to that of the Arabian historian; yet they support each other. After the battle of Joppa, Saladin was deriding and reproaching those Mussulmen who had undertaken to capture Richard, on account of their ill success, when a Turk from a distant district replied, 'Truly, sire, this king whom you are talking of is not like other men; for these ages we have not heard of so firm, so well approved, so experienced a soldier: he is the first in every disquisition, singularly famous in negotiation, the foremost in an attack, and the last in a retreat. We might anxiously endeavour to capture him without success, since no one can with impunity sustain the horrible, the fatal, the almost supernatural power of his word.' Indeed we need not have gone beyond Mr. Berington's

ton's history for some examples of Richard's abilities in negotiation. The firm attachment of his friends and of the English nation, in his worst misfortune, seem to show that it was more than the fascination of military abilities which attracted them. Yet Richard seems, in some instances, to have been superstitious; and this, with an occasional savage ferocity, and an ignorance or disregard of the constitution of his kingdom, a subject then scarcely thought of, was the fault of the monarch whose conduct we are now to consider. His unconstitutional proceedings must, however, have been flagrant even in that æra, to disgust the venerable Raynulph de Glanville.

Coming early to the throne, with an active mind, very extensive power, and no inconsiderable treasure, the East was alone open to his military prowess. The first event of his reign was the disastrous massacre of the Jews; but it ought to have been *more pointedly* remarked, that it was owing in part to their obstinacy, and in part to accident. It was not the fault of Richard, who endeavoured to check the tumult, and to punish the offenders, if its force and the murderers had not been too powerful. The intention of punishment, if it had been practicable, is particularly mentioned by Walter of Hemingford,

His preparations for the crusade were marked by impetuosity, by oppression, and perhaps by a little deceit; for the royal demesnes, so improvidently sold, his subsequent conduct leads us to think, were intended to be resumed. His sale of the northern counties to the Scottish monarch appears to have been truly political, as by that means every cause of war on the northern frontier was prevented; and the event justified the measure, as the tranquillity of England was not once interrupted by William during his absence. In short, rash, hasty, and improper as his conduct appears at first, our views will be greatly altered after a little relection.

The same impetuosity seems to have distinguished his conduct in Sicily and Cyprus. The events, however, were strongly in favour of his military character, and we think of his policy. In Palestine we have seen him the terror of the Saracens, as much by his political conduct as by his spirit and enterprize. The siege of Ptolemais, in the Arabian work before quoted, is not less interesting than that of Malta, though debased by greater cruelties. The slaughter of 2700 Turks can scarcely be defended even on the inhuman principles of war in that æra. Richard, in his letters, boasts of it; and Mr. Berington, from the letters and the accounts of Hoveden, excuses it on the foundation of Saladin having first broken the terms. Bahao'ddin, though he seems to allow that some of the nobles

to be exchanged were not to be found, inveighs against the cruelty of the ‘accursed’ Richard, since, he says, all the lives were to be spared without any condition; yet, in the terms he himself records, it is said that they were only to march out alive on the conditions mentioned. Winisauf endeavours to save Richard’s character by the following clause, *coacto consilio majorum in populo.*

The other events of Richard’s reign are not related very differently from the accounts of the best historians; but even the anecdotes interspersed, show Richard’s judgment, generosity, policy, and placability. See p. 411, 416, 422, and 427. If the reader, with the work in his hand, will look at these passages, he will not admire the consistency of the historian in the concluding character of this monarch. In the following observation every impartial enquirer will agree: it was in a future reign that the constitution began to assume a regular form.

‘One certain document we collect from the history of this reign, which is, that the government of England was most unsettled; and that the forms of a council, or a species of representation, to which Henry seemed often to refer himself, originated from his own politic and prudential views, and not from a supposed order which legislation had established. As they arose, it was my aim to mark such circumstances as could help to develope the growing features of our government. The word *parliament* I studiously avoided. It occurs, I think, in one ancient author, who writes on the events of this period; but he lived posterior to the times.’

The popularity of Richard survived him, and the gloom with which the barons received John, is not so inexplicable as our author seems to represent it. He had acted with the basest ingratitude to his brother and benefactor; to their monarch, whom they regarded almost with adoration. Above all, there was a nearer heir, according to the system of those times, Arthur, the son of Godfrey, who was looked up to as the guardian angel of the realm, and the institutor of future orders of chivalry. John was known to be rash, weak, impetuous, and inconsistent. Arthur was yet unknown; but the popularity, which always follows the youthful prince, already rendered him the object of respect, as possessed of every quality with which their fond hopes could decorate him. This was the cause why a semblance of an election was held forth, if indeed it was so; and for these reasons the barons with thoughtful anxiety repaired their castles and cleansed the ditches, expecting the reign of Stephen to be renewed.

The first steps of John added to their apprehensions: he resigned,

signed, or at least did not refuse to resign Northumberland and Cumberland to William, satisfied with an empty unmeaning homage; and to Philip, probably as the price of his neutrality in Arthur's cause, his concessions were equally valuable and important. Philip, however, a politic prince, could not long be retained by treaties from seizing what would be advantageous to him. The barons of Poitou were in arms, and Arthur's cause was at least popular, and might be the source of acquisition to himself. He invested him therefore with the duchy of Bretagne, the earldoms of Poitou and Anjou. In attempting to acquire possession of his right he was taken prisoner, and no more heard of. The page of Shakspere has consecrated his name, and rendered the theme an interesting one. The poet, it is said, succeeds best in fiction, and it is highly probable that the dramatic events are fictitious. Arthur was certainly murdered, but perhaps without any previous cruelties. The annals of Bretagne say, that he was stabbed and thrown over a steep cliff into the sea.

The cause of Arthur was supported by Philip, the Bretons, and the disaffected nobles of Poitou. John's foreign possessions were wasted, or seized, when Innocent, the most able and enterprising successor of St. Peter, who with deep and refined policy, lived in a period best adapted to the exertion of his talents, interfered in the cause of the king of England. The enterprising Philip, however, found means to appease the pope, when the new crusade, the capture of Constantinople, and finally the contest respecting the appointment of Langton to the archiepiscopal see of Canterbury, gave a different direction to the views and designs of Innocent. At home the conduct of John was equally unstable and irregular. His exorbitant claims on the barons, the Scottish war hastily began, and after some few advantages as hastily left, the attack on Ireland, whose establishment was more carefully and more firmly fixed, and the desultory campaign in Wales, mark his character more clearly than the eloquence of the historian. These parts of his life, however, Mr. Berington passes over too hastily, while the contest for the imperial throne, the events of the crusade, and the intrigues of Innocent, are treated with too much diffuseness.

The measure of John's misfortunes was now full; he was excommunicated, his land was under the papal interdict: on the continent, Philip had dispossessed him of all his territories, Aquitaine only excepted. The French king had been secretly invited by the discontented barons to accept of the English throne; Innocent, yielding to political motives, willing to appear to dispose of the crown with success, had granted it to his enemy; and Philip was ready to seize the falling sceptre.

tre. But, in the moment when the blow was expected, Pandulphus offered to ward it off on John's submission; for Innocent was unwilling to render Philip more powerful, who had already resisted his mandates. The weak and impetuous John rashly consented, and resigned his crown to receive it again from the pope's legate.

‘ So ended this memorable day, the fifteenth of the month of May.—With regard to the transaction itself, which modern writers know not how to view with decent composure, I will observe, that had themselves been eye-witnesses to it, their indignation had been less violent. With difficulty some minds divest themselves of their common habits of thought, and go back in imagination to ages which have passed away. An extraordinary power which I have sedulously traced, was then ascribed to the Roman bishop, and of more kingdoms than of Sicily he was acknowledged to be the suzerain lord. Acts of feudal homage were common, and were not attended with disgrace. We saw the king of Scotland voluntarily surrender the independence of his crown; and princes and the great barons daily transferred their fealty on the slightest provocation; and the English monarchs were in the constant habits of performing the humiliating ceremony, as to us it appears, in the hands of the kings of France. But however this may be, the surrender which John made of his crown was the authentic act of the nation, expressed in as full a manner as the most solemn deeds then were. The primate was not present, for an obvious reason, nor the archbishop of York, the son of Rosamond, who was then dead; but the archbishop of Dublin, witnessed the charter, and the bishop of Norwich, deputy of Ireland, and Fitzpeter, the justiciary of the realm of England, with other barons. The great council of the nation, as it is called, seems to have been assembled in its wonted solemnity. Such meetings, by some writers, on less important occasions, have been dignified by the appellation of *parliament*. What probably were the motives which induced the justiciary, a man of great experience as he is represented, and of consummate wisdom, to forward the extraordinary measure, I have said. Others might be variously influenced. The bishop of Norwich in particular was an enemy to Innocent, whose promotion to the see of Canterbury he had impeded. This only may be affirmed with confidence, that they preferred the measure on the best view of things, as most tending to the good of the nation; and that to their eyes it carried little of the ignominy which we have affixed to it. Pandulphus seems to have co-operated with the wishes of the prelates and barons at home, as he had with those of the exiled party; and what is remarkable, the historian who can often be severe when Rome is concerned, neither reflects on the nuncio or his proceedings; nor does he intimate that any part of the transaction

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raised the smallest opposition or gave offence, excepting in the single instance which I have mentioned,—viz. trampling some money which the king offered as the earnest of his subjection under his feet.'

From the reconciliation, and the new oath administered to John by Langton on his return, Mr. Berington dates the origin of Magna Charta. In the usual form he swore to establish good laws, but those it was added were the laws of his predecessors, and particularly the Confessor: the remaining copies of the charter of the first Henry furnished the model, and gave a stability to this seemingly general clause. These Langton produced to the barons, and the event is well known. We ought, however, to add, that our boasted charter is too full of aristocratic tyranny, and it only became of general importance by the abolition of villenage, which, by the way, lost its burthen before it lost its name. The barons, by their conduct, did not deserve the freedom which they gained: it was timid, irresolute, and pusillanimous: they at last applied to Louis, the son of Philip, for assistance, in return for which they offered him the crown. The disputes which this measure occasioned at Rome, for Innocent continued to favour John rather than Philip, are at this time curious. The barons insist on John's having, on account of his resignation to the Roman see, and the murder of Arthur, for which he was condemned in the court of Philip, on trial by his peers, as a vassal of France, abdicated the throne, and on their right of election, though they are anxious to prove that they have not transferred the crown from the family, or passed by the next heir without urgent reasons. As far as we have been able to examine, Mr. Berington's account of this transaction is accurate and pointed. The last event in this history is the war occasioned by the invasion of Louis, a war in which the nation suffered as much from its king as from his antagonists, and terminated, in this volume, by the death of John, a prince whom history has not embellished with many virtues, but to whom she seems to have denied the few that are due. It is not too late to observe, that while virtues, by being carried too far, sometimes border on vices, the contrary progress may be sometimes traced in the history of the human mind. Thus John's eager impetuosity was, in some instances, a laudable activity, and his rashness assumed the semblance of, or was for a time really valour. To each of these his successes were owing, where he did succeed, and, with whatever colours historians may disgrace his concession to the see of Rome, it was at that time the only step to preserve his kingdom, perhaps his life. We mean not, however, to apologise for the measure by this suggestion;

suggestion; yet, as Mr. Berington justly observes, it ought not to be judged of but with the opinions of that period respecting the Roman power and pretensions. We have concluded this reign with more rapidity, as our historian did not furnish any new or uncommon views, and we wished for room to give his own general recapitulation. His chief authority, after Hoveden had concluded, is Mathew Paris.

‘ I have finished the period of sixty-two years, which measured the reigns of Henry II. and of Richard and John, his sons, a term, in the retrospective view, of short duration, but filled with events, and marked by characters.—In Henry we beheld a prince of great and splendid talents, early tutored in the school of adverse fortune, and raised, by his own prowess, to a mighty empire. The out-setting of his reign was prosperous; but an unfortunate contest with the church ensued, in which no glory could be gained, and which brought to nearer view a degrading series of affections and conduct, which, in other circumstances, might never have been exhibited. The close of it, we saw, was most unhappy; and it raised the indignation of Christendom. But the submission of Ireland relieved the gloomy aspect, which the rebellion of his sons again obscured; and in various occurrences, which too often tended to diminish the lustre of his early days, the eventful period of Henry’s reign hastened to its melancholy issue. Within himself, it seemed, lay the source of every evil. For a more guarded temper would have reconciled him to the church, at that time, too dangerous a power to contend with; and more attention to Eleanor, his queen, would have chained her ardent spirit, and have secured the obedience, at least, of his children.—The men, who served near his person, or whom he employed in the concerns of state, were eminent, and well chosen. I brought them into view. Becket, of all others, from a certain similarity of character, was best qualified to have possessed his confidence; and together they had been an overmatch for secret machinations, or the bold designs of public enemies. But the very circumstance of similarity of dispositions was the cause of their disunion, and led to contests. The possession of a friend has seldom fallen to the lot of princes.—The concomitant characters of Henry’s reign were, in France, Louis, weak, honest, and brave; in Germany, Frederic, bold, imperious, and enterprising; in Italy, Alexander, whose virtues and unambitious views, in a better age, had dignified the tiara. And round these princes we saw collected many distinguished personages; and the events of their days were striking, in the exile of the Roman pontiff, in the successful struggles of the Lombards, and in the preparations for the third crusade.

‘ The reign of Richard, opening with improvident and arbitrary measures, and throughout disfigured by discontents at home, and abroad

abroad by a lavish waste of men and treasure in the wild wars of Palestine, had nothing to engage the attention of the philosophic historian. Only that the errors of the human mind, if duly contemplated, may become a source of as much instruction, as its most steady adhesions to truth and equity. We pitied him in his captivity; but the heavy charge, which fell on an exhausted people, to ransom the worthless prisoner, soon stifled that pleasing emotion; and no event succeeded to prepare the mind for compassion, when his untimely death came on.—His ministers and the great personages of the realm deserved little praise. The truth, however, is, that the writers of the times were so engaged in relating the feats of their king, and the achievements of a ruinous expedition, that domestic characters and the events of peace were lost in the turbid stream, and died away unrecorded.—But, in France, for some years, we had beheld the growing greatness of Philip Augustus; while, by the side of Richard, whether in his own territories, or at Messina, or in Palestine, his temperate, but manly character, commanded our admiration, and defied competition.—Frederic had perished in the Salef: the Norman line of kings was at an end on the throne of Sicily: and at Rome, after a succession of five less illustrious bishops, from the death of Alexander, was seated Innocent III.

‘ The conduct and character of John, and the events of his reign, are recent on the memory. We saw its inauspicious opening, his weak treaty with France, his ungenerous marriage of Isabella, and his vain and oppressive progress through the provinces of England. The barons shewed their discontent, when he passed into Poitou, took Arthur prisoner; and we heard the rumours which followed his death, and which was succeeded by the loss of Normandy and other possessions. Stephen Langton came forward on the scene, which gave rise to altercations between John and the pontiff. The kingdom fell under an interdict, and the rage of the king broke loose. Then opened the important contest, which, after various occurrences, led to the submission of John to the mandates of Rome, and which produced the meeting of the barons, and their confederacy. We beheld them at St. Edmundsbury, after the taking off of the interdict, and their successive proceedings, till they met on Runnemede. MAGNA CHARTA. The dark vengeance of John followed, and the preparations for war. The barons were excommunicated, the country laid waste, prince Louis invited over, landed in spite of the pontiff’s injunctions, and while he besieged the castles of Windsor and Dover, John took the field, and as a gloom spread round the general aspect of things, he died.—The under actors, who chiefly claimed attention, were Stephen Langton, and the Roman Pandulphus, and

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the barons pressing forward, with a restless ardour, to the new dawn of liberty. In France, Philip had still kept the ascendant, rather he had risen higher, in competition with our inglorious monarch, and had added territories to his crown.—The brave Otho had fallen from the German throne; while from Sicily came another Frederic, who would eclipse the fame of his grandfather Barbarossa.—In the chair of the humble fisherman, was seen Innocent!

At this period we may shortly recapitulate our opinion of this work. We have spoken freely of its errors, and shall not invidiously deny it a due share of praise.—As an historian, we have found Mr. Berington biased by a particular opinion, and, respecting the conduct of Becket, partial. We have observed too, that he has not proportioned his labour to the importance of different parts; and that the most prominent groups in the picture are sometimes those with which the English princes or the English history have little share, while he has passed over, cursorily, some facts in which it was considerable. But Mr. Berington is in no instance tinctured by superstition. His mind is capacious and comprehensive; his judgment, if we except the parts where it is warped by the bias mentioned, solid and accurate. His language is, as usual, bold and animated. It is sometimes too abrupt, and sometimes a little obscure:—rem variare cupid nimis prodigaliter unam;—but in general, it is energetic, and often elegant. In his enquiries, we have seen him neglect some authors of importance to the question; but we have not seen him pervert the meaning of those whom he has quoted. On the whole, as an historian, he does not stand in the highest rank; but he will often be read with pleasure, and occasionally with information.

The subject of the second Appendix we have already noticed. The first relates to the manners of the English and Normans at the Conquest, with the progressive changes in dress, amusements, arts, sciences, religion, and political opinions. On these subjects, though our author advances nothing very new, he has brought, from remote and unexpected sources, some facts of importance, which illustrate the progress of manners, and of the arts both pleasing and necessary: few, we think, can read his Dissertation without pleasure. If we had not already intruded too long on the reader we should have extracted some passages from it: at present we must leave the historian, whom, perhaps, in his future progress, we may be able to praise with less reserve.

The Natural History of the Mineral Kingdom. In Three Parts.
By John Williams, F. S. S. A. 2 Vols. 8vo. 14s. Boards.
Printed for the Author. Dublin. 1789.

WE lately reviewed the Philosophy of Natural History, and this work may in some degree be considered as supplemental to it. We may call it, with the author, the Philosophy of Mineralogy; but it is too minute to be popular, and too technical to interest any one but the professed mineralogist. To these it will afford much information, as the author seems well acquainted with his subject; and though he is a little too fond of some peculiar opinions, he is in general a faithful guide, on subjects where a guide was greatly wanted.

In the introduction, Mr. Williams observes with great propriety, that Britain owes as much to her metals and to her coals, as to all her other advantages. This is a position incontrovertible, and we mention it chiefly to direct the attention of our readers to a point which they may not have considered, for there is scarcely a metallic utensil or a metallic ornament, watches perhaps excepted, that is not manufactured in England with greater skill than in any other kingdom. Our author applies this fact afterwards to a circumstance which deserves the notice of our government. After mentioning the general subjects of which these volumes consist, the author proceeds to animadvert on Dr. Hutton's Theory of the Earth, in the first volume of the Edinburgh Transactions.

We have had occasion to observe, probably in reviewing that essay, that the natural historians of the earth have been too attentive to the effects of fire and of water, separately, according as their system was founded. Buffon having first vitrified the globe, employed only water to soften it: Dr. Hutton wished to cement the earth by fire, and to burst its cements by volcanos. These philosophers, though highly respectable, had not attentively observed the different strata or the various operations of Nature. They did not see that no cement could form a mass so hard as the process of crystallization, or that in all the primæval mountains, few marks of fire, except as a cause of explosion, capable of overturning mountains, occurred. Mr. Williams is more moderate, but he does not admit of melted lava insinuating itself between the strata of rocks, or of the basaltes having ever been in a state of fusion. Of each we think there is a sufficient proof. In his estimation also of the proportion of lime-stone in this globe, we do not think that he has considered with sufficient care the vast tracks of lime-stone country in the interior parts of America. In general, his objections

jections to Dr. Hutton's Theory are very judicious, and particularly in that part where he shows that the land is rather gained from, than covered in a greater proportion by, the sea.

The first Essay relates to the coal-mines, and this subject is examined with much professional skill; but we should not greatly interest our readers by a description of slips, dykes, gashes, shapes, outbursts, roofs, and pavements of coal. We shall take up some more popular parts of the subject. Coal-mines are not formed in extensive strata, for the coal does not pass under any large mountain and emerge on the other side; and veins discovered by accident in ditches do not always lead to a load, or emerge on the opposite side of even secondary hills. Coal also, in our author's opinion, does not sink deep; for tho' some loads are left because they cannot be profitably worked at a great depth, yet many are exhausted before we arrive at that point. Coal-fields then, instead of following the general laws of other strata, are in some degree patches; but they follow a certain line, and almost a fixed boundary.

As coals are so essential to manufactories, our author thinks that we are too prodigal in exportation, and draws a frightful picture of our situation when the coals are exhausted. The picture is chiefly coloured from his own imagination, and some of his facts are not accurately stated. The tin-mines in Cornwall now raise more tin than they can dispose of; nor is the price enhanced by the dearness of coals, in consequence of their scarcity. It will be greater if the demand for the East India market is greater; but this is independent of the coals, nor are the coal-mines of South Wales nearly exhausted. If coals were to bear a very little higher price, we know many new mines of this fossil that would be worked; and if the scarcity which Mr. Williams apprehends were at all probable, mines might be opened in the neighbourhood of the many navigable canals now perfected. From appearances, the coal-works at Worsley in Lancashire are almost inexhaustible; those of Wales, and on the opposite coast of Somersetshire, are greater in extent. But we are not without consolation even in this volume.

As the island of Cape Breton is of considerable extent, and as there is a certainty of coal existing in the island, there is a great probability that it may prove a valuable coal-field; and, moreover, there is but a narrow strait between Cape Breton and Nova Scotia, and the latter is situated directly in the line of bearing of the strata, and, therefore, it is probable that coals may be found in the maritime parts of Nova Scotia, where it is said that they really have been seen; and it is also said that coals have been discovered in the island of Newfoundland, one or both of which places may turn out well

if properly tried: but supposing that they should not, Cape Breton is of such considerable extent, that it promises a fund of coal equal to a very extensive exportation, and to the demands of the new world, for a long period of time, there being no room to doubt the existence of a number of seams; and it is highly probable from what is related of them, that they are seams of a good thickness and quality.'

' I do not know that there is much coal, if any, as yet discovered within the territories of the States of America; and, therefore, it is to be supposed, that as they gather strength, and feel more the want of coal, they will cast an evil eye upon Cape Breton, &c. and envy us the possession of an island in their neighbourhood, which seems to be a vast magazine of coals.

' Fire-wood will soon grow scarce and dear along the coasts of North America, and manufactories will soon be established there, which cannot be properly and effectually carried on without large supplies of coal; and, therefore, we must suppose that the very sense of their wants will alone be sufficient to make a conquest of Cape Breton for the sake of our coal. Such a conquest might be accomplished and secured before we in Britain could be well apprised of the preparations for it; but if we had flourishing and extensive collieries, and a brisk coal-trade going on there in conjunction with our fisheries, it would be more worth our while to keep the island in a more sufficient posture of defence than it is at present.'

This is a subject that requires attention even in a political view; and there are not so many difficulties in the way of working these mines as our author suspects. The loss of Cape Breton is not to be feared, for the islands must always be at the command of the greatest naval powers.

Our author next describes the appearances which point out a stratum of coal, and some deceitful phenomena which may occasionally mislead. Among the latter we find the appearance of petroleum, or ocre. Coal, Mr. Williams supposes, is not produced from petroleum, but is petrified wood; an opinion totally inconsistent with chemical facts, and not supported by his own experiment. This fossil is, he says, an original one, and not restored after being destroyed; but he gives an instance in Castle Leod mine, where it is mixed with metallic matters; a circumstance totally inconsistent with its woody nature; and Baron Born has mentioned another, where he found it among the lava of an old volcano. The practice of making coal-tar revives his apprehensions of a scarcity of coal; but we suspect this process not sufficiently profitable to attract adventurers,

March, 1791.

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except in the neighbourhood of smelting-houses, where the coak is employed, and little tar is drawn that would not otherwise be wasted in the operation of charring.

The second part, on the Natural History of Mineral Veins, and other Beds and Repositories of Metal, contains many very valuable observations; but in language too appropriated and technical for our present purpose. Copper and iron abounds, he thinks, on the west and east coasts of Scotland. The Anglesey mine will, for a time, prevent every attempt to work copper; and if it should fail, the mines of Cornwall are still far from being exhausted: our author is misinformed when he speaks of the quantity of the ore compensating for its want of richness. It is far from being poor in many of the different mines in that county. The iron ore we could wish to see more diligently sought after, and scientifically worked. We fear, however, it will be many years before it will rival the Swedish, or even the Russia iron, in its present improved state, or be fit for any purpose besides melting.

The third part, which fills the whole of the second volume, contains the Natural History of the prevailing Strata, and of 'the principal and most interesting Phenomena upon and within the Surface of our Globe.' Our author's first object is to describe the different rocks and strata of this island, to point out which are 'regularly stratified and which of them are not, with the different degrees of stratification.' This subject is branched out in many particular descriptions and minute observations. The remarks are in general just, and show the author to be an accurate and careful enquirer. The sand of the white granite, he remarks, is probably the kaolin of the Chinese, and the pure white quartz is the petunse. In this he is not quite correct. The sand, which he describes is only the comminuted granite; before it deserves the name of kaolin, it undergoes a farther decomposition, and assumes an argillaceous appearance, when it is called the growan clay. Much of this substance is found in Cornwall and in the neighbourhood of Torbay, and it is the support of the manufactories of Staffordshire and Lancashire. These manufactories produce at present a biscuit, scarcely, if at all, inferior to that of China: they now confine the different colours with success on the hardest body, and in a few years may probably equal China in her most valued productions, while at present they excel the Chinese workmen in the beauty of their drawings, the correctness of their design, and the chastity of their colouring. Cornwall, which has greatly suffered in her sale of tin, by their improvements, draws some advantage from them by the sale of her clay, and by the coals brought by the ships which fetch it. As the materials

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abound in Scotland, our author thinks that potteries can be carried on there with success; but the establishments already mentioned would always be able to undersell them.

Our author's remarks on marble, and the necessity of examining the different limestone strata, to find beautiful marbles, equal or superior to foreign ones, we know to be very useful; for from competitions between workmen under our own eye, we have seen marbles and jaspers of the finest and most beautiful kinds discovered where their existence was scarcely suspected. On the subject of basaltes we apprehend our author confounds the whins and traps with columnal basaltes, which have evidently been fused: the following passages will justify our suspicion, while they contain also some curious information.

‘ I observed above, that the strata of basalts spread as wide and stretch as far in the longitudinal bearings as the other different strata, that accompany them in the countries where they are found. I also observed, that the rocks of basalts are generally found in very thick strata, and that in places where no other rock is found above the basalts, the strata of it are often very unequal in thickness. But this in general is only in situations where no other rock is found above it; for when it fairly enters into the superficies of the earth, so as to have other regular strata above it, which is seen in a hundred places in the Lothians, Fife, and other parts of Scotland, it then appears pretty equal in thickness; as equal as most other beds of such great thickness are; and yet it is remarkable, that although most of the strata of basalts are of great thickness, there are frequently thin strata of various kinds found both above and below it. We have numerous examples of this in all the parts of Scotland where the basalt is found, as for instance there are thin and regular strata seen and quarried both above and below the thick bed of that rock in the Salisbury Craigs near Edinburgh.

‘ In the Bathgate hills, south of Linlithgow, and in many other parts of Scotland, there are several strata of basalts; and also several strata of coal, of limestone, freestone, and other concomitants of coal, blended promiscuously, stratum super stratum; and the basalts is frequently found immediately above, and immediately below regular strata of coal; of course, basalts is not the lava of volcanoes. We can prove to ocular demonstration, from the component parts, and from the situation, stretch, and bearing of the strata of basalts, that they are real beds of stone, coeval with all the other strata which accompany them, and are blended with them in the construction of that part of the globe where they are found, as they dip and stretch as far every way as the other strata found above and below them. So that if basalts be a volcanic production, so must all other strata be of necessity: but how volcanoes should produce coal,

and how that coal should be regularly spread immediately above and below strata of lava, is a little problematical ; or rather, it is strangely absurd to imagine, that burning lava can come in contact with coal without destroying it.'

Our author's next attempt is to give the Natural History of the Superficies of our Globe, with a particular description of all the varieties which occur in strata, in order to show that water has been the principal agent in their formation. This system Mr. Williams pursues with great attention and perseverance. He endeavours to show that the Diluvian tides were far beyond the height of our present hills ; that the granite and other stratified mountains were mere depositions of the heaviest matters ; and the successive strata, the effects of an undulatory deposition ; the inequalities proceeding from the various matters being deposited on unequal surfaces. This system, we have already observed, does not coincide with what we think are the various appearances, though it must be acknowledged, that inequalities may as well proceed from the sinking of the different strata, as on the raising of others, and the apparent upright strata may have attained that situation by the subsiding of the other extremity. There are, however, other objections, of which the different specific gravities, and a situation incompatible with these different gravities, are not the slightest. If also fire had no share in these changes, the metallic substances should at last have subsided with the materials of granite ; but while silver is occasionally found entangled among the particles of quartz, it is not most commonly found there ; and gold as well as other metals are discovered in a very different matrix. Gulphs and caverns are owing, in our author's opinion, to strong currents of water ; and a pretty extensive investigation in a subsequent part of the work follows, to explain various appearances of this kind from different tides. This we shall not particularly examine, for many branches of philosophy, besides mineralogy, are required to solve this problem : these Mr. Williams seems to have attended to with less care. The isthmus of Suez and of Darien, he tells us, are situated nearly in the same latitude ; but this coincidence is of less importance ; for, in the general current of waters from the equator to the poles, the sea has often gained on the land in a northern direction ; but its progress depends on the nature of the strata which it meets with.

After the enquiry into the formation of mountains, our author proceeds to consider the nature, size, quality, and figure of the larger grains. He examines some of the substances of which we find no extensive strata, and informs us, that in the destruction of the antediluvian mountains, these fragments

were probably scattered, and again incorporated in our hills, by the co-operation of water. Thus, at that time, there may have been mountains of gold; clifts of diamonds; an extensive chain of micaceous hills, of rubies, or amethysts; beautiful perhaps in appearance, but useless and inconvenient. The cause of the deluge we shall transcribe from his recapitulation.

‘ The deluge was not brought about by producing a quantity of water sufficient to cover the earth round about, to the depth of several miles, so as to overflow the summits of the highest mountains, which appears to me impossible without a miracle, if we allow those mountains to stand firm and remain as they now are. The universal deluge was brought on and accomplished by the concurring agency of a number of second causes, all of which were prepared and ripened in the ordinary course of nature. From there being no rain in the antediluvian earth, the superficies of the strata gradually lost their cohesion, and approached to decay for want of natural and necessary moisture. An immense quantity of water was accumulated in the regions of the atmosphere, by constant evaporation from the ocean and lakes, without any returns or diminution by heavy rains, during the space of near two thousand years; but when the rain began, it continued pouring down constantly for the space of six weeks if not six months. When this constant heavy rain poured down upon the over dried and half calcined strata, the sudden access of such abundance of water naturally produced an ebullition and ferment, whereby the dislocation and destruction of the solid surface of the earth was soon completed; and by this means, the rocky shores, which were then the only mural bounds of the ocean, were decomposed, broken to pieces, and mixed with the waters of the ocean, and of the rain. When the boundaries of the ocean were thus broken to pieces, and mixed with the waters into a sort of chaos, the fluid surface was soon greatly enlarged, and thereby a much greater surface of attraction was exposed to the influence of the sun and moon, and of consequence the tides would be proportionally raised; and this natural cause and means, when joined with the constant heavy rains, and the dissolution of the superficies of the strata, would, when all united, soon overflow and destroy the whole solid surface of the globe, and produce an universal chaos or deluge.’

The new world was peopled by men and animals, he thinks, from the north eastern part of Asia, because all the animals of the old continent are those of cold climates, or which can bear heat and cold indifferently.—We have only sketched an imperfect outline of our author’s system, since our readers will probably have anticipated us in concluding, that whatever merit Mr. Williams may have deserved, as a careful enquirer

and a diligent surveyor, he has lost in his more general capacity of a philosopher. Even the different minerals are often confounded.

Mr. Williams next treats of volcanos, and considers them as accidental events rather than as powerful agents in the great operations of nature. He supposes the line of volcanic fuel to lie N. N. E. and S. S. W. and, in this line, advises no cities to be built, but the husbandmen to live in tents, having acquired knowledge enough of impending dangers to escape with their lives. Our author does not consider that, if the reality of this imaginary line was once established by experience, labour would not be thrown away on so fatal a spot; for, though the farmer or shepherd may escape with their lives, they could not easily carry away their crop and their flocks. The reality of the line is, however, far from being established; and the existence of volcanic fuel is equally imaginary. Our author calls it pyrites, and thinks volcanos *lighted* by lightning at the surface; an idea equally whimsical and groundless. He speaks also of inflammable air, of petroleum, and pit-coal, as volcanic fuel, and of electricity as in some degree connected with these phenomena, but does not point out the proper offices of either of these substances. Basalt and tufa our author contends at some length, but with little success, are not volcanic productions. But, in the progress of this enquiry, and in his laudable zeal to defend the Mosaic system, he adduces an argument taken from the vitrified forts of Scotland, against the insinuations of Mr. Brydone. In the examination of these walls, he observes, the external parts were least decayed; a proof, he adds, that lavas do not decay more by exposure to the air than in their internal parts. The decay of the surface of lava in the air is too notorious to require an argument in its defence; and it is remarkable that our author, who denies the existence of volcanic matter, where it is seen, should admit it without reason. The only consequence to be drawn from the fact mentioned is, that the vitrification of these walls was not accidental, but the effect of art, and of fire applied externally.

Some curious miscellaneous observations follow. Among these it is contended again that America was peopled from the north of Asia; and that Madoc, the Welsh prince, and his wife, were the Mango Capac and the Mama Ocello of the Peruvians, wrecked on the coast of Brazils, and proceeding in a boat up the river of the Amazons. We shall only remark, that this imaginary progress is totally inconsistent with the traditions of the Peruvians, who bring their legislator from the north, and the shores of the Northern Pacific.

Another part of this miscellaneous section relates to the decay

say of water, and the formation of new land. The repository for the lost water is the vast masses of polar ice and snow, so that materials are accumulating for another deluge, if the obliquity of the ecliptic should increase. But, in the enquiry respecting the formation of new land, our author goes back to the time of Noah. Previous to this event he supposes, with many other authors, that there was no rain, and that the curse of God, in the sterility of the earth, was at that time peculiarly conspicuous. Noah rested after the deluge in Armenia, and thence proceeded to China, because he was a husbandman, and because husbandry has been always particularly attended to in China. The various rivers and their embouchures are next described, to show the gradual accession to the solid parts of the globe.—The volume concludes with some remarks on banking and deepening rivers. Here our author is again in his element, and his remarks are judicious and practical. In general, he displays many marks of a strong mind and a sound understanding; of a mind strengthened by accurate attention, and an understanding matured by experience. In speculative enquiries, he fails rather from not having examined the whole of the subject, than from reasoning inaccurately on what he knows. If he had kept within his own limits, we should have praised him with less reserve.

An Essay on Fevers; wherein their Theoretic Genera, Species, and various Denominations, are, from Observation and Experience, for thirty Years, in Europe, Africa, and America, and on the Intermediate Seas, reduced under their characteristic Genus, Febrile Infection; and the Cure established on Philosophical Induction. By Robert Robertson, M.D. 8vo. 6s. Boards. Robinsions, 1790.

THREE is a warmth and eagerness in our author's expressions and manner, which we cannot but reprehend, when, from partial and limited views, he insinuates that the whole mystery of fevers is revealed only to himself and a few of the enlightened physicians of the present æra. He tells us, however, that he has seen fevers in three quarters of the globe, and during a series of many years; but a slight reflection might have convinced him that the variety would have probably been greater if he had been confined to one populous city. He has, in reality, seen only the fever of ships and hospitals; and, if his observations had been professedly confined to these, we should have considered this work as an useful one in its proper line. Dr. Robertson has observed with great accuracy, and his practice is in general judicious, decisive, and active.

Fever, he remarks, is but of one kind, and he has characterised

terised it under the name of febrile infection. We shall examine each point. He observes, with great propriety, that every fever consists of distinct paroxysms, and this peculiarity unites the mildest vernal intermittent to the most malignant jail fever; yet, allowing all this, there is a difference in the appearance of the disease, there is a difference in the treatment, and the degree of infection. The inflammatory intermittent of cold climates is exasperated by the treatment which is absolutely necessary in the malignant remittent; and the bilious matter, collected, is not so easily evacuated by a single emetic and laxative as to admit of the bark in the early state, without doing much injury. These are facts which we have often seen: they occur frequently, particularly in the northern parts of this island. When this system was first published by Dr. Millar and Dr. Lettsom, we thought it an easy plan, for it superseded much examination; and we pursued it, though not in the extent recommended by these authors; thinking, that if half a drachm of bark produced disagreeable effects, double that quantity would be more injurious. In this climate, the putridity is not very often alarming, though a nervous fever, and sometimes an ulcerous sore throat, will require large doses of bark, and approach in so insidious a manner, that much experience is necessary to be able to detect the danger. We have sometimes seen them require a drachm of bark, with the warmest cordials every three hours, and have, in such instances, ordered it with the best effects. But when, in the nervous fevers, with much irritation on the brain, bark has been given, the heat has been greater and more pungent, the delirium and subsultus worse. In a case of this kind, would Dr. Robertson increase the dose of bark? or would he in general order a medicine to oppose debility, when no alarming debility existed? By such indiscriminate recommendations, much injury is done. Again, in the bilious fevers of this climate, the evacuation must be continued, and the discharge must be considerable every day. If the bark is given, the stricture in the hypochondria is increased; the tongue grows more foul and brown, delirium ensues; while the patient, in the opposite circumstances, really gains strength from the discharge, as the accumulation of the fluid evacuated increases the disease. If, says Dr. Robertson, a few motions weaken a healthy man, will they not much more weaken a person who is sick? By no means, while the fluid discharged was the cause of the symptoms, as in the instances mentioned. In hot climates the circumstances are different: the bilious discharge originates from relaxation, and, the bile in the intestines once evacuated, its accumulation is prevented by the bark. In this country, the tenor and more inflammatory state

of the fibres occasions it to produce a stricture, and seems rather to prevent its excretion than the secretion. If then fevers are of one genus, three or four species, requiring different treatment, may be very properly pointed out; the intermittent, the inflammatory fever from cold, independent of local inflammation; the nervous fever of this climate, and the malignant remittents, which are sometimes at first inflammatory. The nervous fever is nearly allied to the putrid fever, and perhaps the large accumulations of bile may occasionally attend either, forming a striking and important feature in an epidemic, but not sufficiently characteristic to distinguish a new species. We have avoided the terms of authors, which have so much displeased Dr. Robertson, and can assure him, that these distinctions are carefully noted from the bed-side.

It is the next object to enquire how far this fever is properly styled febrile *infection*. Fevers, our author observes, are infectious; and, though some may escape the disease after being exposed to infection, persons escape also the small-pox, and even the plague, in the same situation. If it were not to prevent alarming apprehensions, which would sometimes deprive the unhappy sufferer of assistance, we should not have noticed this part; for, in every other view, it would be quarrelling with a word. Infection is undoubtedly a cause of fever in hot climates, and those kinds of which our author treats are certainly infectious. We sometimes find the putrid fever and the ulcerated throat communicated also by infection in this climate; but it is not a common cause, and should not be considered as such. Dr. Robertson's reference to the small-pox is not applicable; for the degree of infection is so different, that, what makes a characteristic distinction in the one, is of very little consequence in the other. In this climate the putrid sore-throat is the most infectious kind of fever; yet, of the attendants even in the worst kind, not one in ten take it; but if one who has not had the small-pox, stays only in the room with the diseased person, as many minutes as the attendants on the sore throat continue days, it is more than an equal chance that he will be infected. The nervous fever is seldom to be traced by infection, and it is greatly doubted whether the intermittents are at all infectious.

These are the leading principles of our author's treatise, and having stated them, with what may be advanced in opposition, we should take our leave of this tract, if one other subject did not demand our attention, the use of opium. This medicine often does injury, and, to employ it with advantage, much knowledge and a careful attention are necessary; but, properly managed, it is one of the most useful medicines in fevers. Our author, however, is so far a follower of Dr. Brown, as to employ

employ it with a view to stimulate ; and, as he is a careful observer, we think his remarks should be treated with respect. We shall select them in his own words, adding only, that his facts do not seem to us to prove his position, that opium may be usefully employed as a stimulus in fevers.

‘ Dr. Robertson first used opium in his own case. He laboured under no other indisposition than what is commonly understood by being *nervous*. I began with doses of twenty-five drops of tinct. theb. ; and by degrees increased the dose to seventy drops, in one ounce and a half of white wine ; and the same number of drops of sp. vol. arom. as of the tinct. theb. and a few drops of sp. lav. comp. to render it more palatable, at bed-time. The effects which I observed from these draughts were as follow :—I passed the night comfortably, but could not sleep ; and was always more inclined to lie in bed, and to doze, in the mornings, than usual, especially after taking the dose of seventy drops.

‘ When I got up in the morning, my countenance was extremely diseased, and my eyes bloodshot, as if I had been very drunk over night, I was told. I was so very languid, heavy, and giddy, that I could scarcely stand ; my mouth was exceedingly parched ; I perceived a disagreeable sensation about my throat ; and when I attempted to swallow at breakfast, particularly bread, I found deglutition almost impeded from a straightness about the pharynx and æsophagus. My appetite, which is always keen for breakfast, was destroyed ; I frequently retched ; and was altogether so greatly diseased, and unfit for business, that I resolved on taking a dose of forty drops of the tinct. theb. in the manner before mentioned ; soon after which I began to recover gradually, but neither had an appetite, nor was comfortable all day. Next day I was less nervous than usual, and was well in other respects, except being cogitative. The doses of sixty, fifty, and even down to thirty drops, have affected me in the same manner, only in a less degree.

‘ I have given opium to many patients in the same manner ; and to one, in particular, in doses of ninety drops : and they felt themselves next day as I have described my own feelings ; and numbers have complained besides of great itching over their bodies, and of a slight eruption. The dose, however, which I most commonly administered, was fifty drops, and sometimes with the same number of liquor. anodyn. Hoffman. or of the sp. vol. aromat or of sp. lavend. c. either in an ounce and half of wine, ardent spirit, or spirituous waters : this given in the exacerbation or paroxysm, in several bad cases of febrile infection, brought on a remission, and the bark was immediately administered freely with wine and water. I have made trial of this stimulus in some other cases of debility, which have done well ; excepting one, who was at the point of death before he began to take it, in a small quantity, frequently repeated.

‘ From these experiments I am convinced that the effects of opium are generally very little known ; for, given in the manner I have mentioned, I have never known it occasion sleep or comatose symptoms. but to act powerfully as an anodyne, and to prevent sleep. But however favourable I may thence be disposed to think of the diffusive stimuli, I never will, nor recommend to, dash with hundreds of drops the first, second, or third dose, in any patient’s case whose constitution I am unacquainted with. As a powerful stimulant therefore, in moderate doses, gradually increased according to circumstances, it may be given with bark in febrile infection, with great advantage ; but a trial is no more to be made, to see how much may be poured down the throat than of wine.’

As a treatise on the ship-fever of this climate, and on the jail and hospital fever of almost every climate, this essay deserves much attention, and may be considered as very valuable. In proving that fever is so much of the same kind, in every instance, as to require the same remedy, or that it is generally so infectious as to merit the title of febrile infection, our author fails ; and since his errors may be highly dangerous, we have pointed them out with care.

A Collection of Treaties between Great Britain and other Powers.

By George Chalmers, Esq. 2 Vols. 8vo. 14s. Boards.
Stockdale. 1790.

FROM a voluminous collection of near forty folios, our author has compiled these very useful volumes, in which he has inserted a chronological index of the treaties, with references where they may be found, and given at length the more interesting ones.

The first treaty of Great Britain, printed by authority, was that with Spain, 1604, and the sagacity of William suggested the utility of publishing by authority the public conventions of Britain with other powers. To this we owe the vast and laborious collection by Rymer, and his assistant and successor Sanderson ; a work equally honourable and advantageous to the nation. Besides this immense compilation, Rymer was a poet, a critic, and an historian. To his sagacity we still owe some judicious notes on Shakspeare, which later editors have preserved notwithstanding the anathemas of Warburton. The publications of treaties in our own country are sufficiently known : we shall transcribe, therefore, our author’s account of the labours of foreigners.

‘ How early foreign nations began to publish their treaties I am unable to tell. The articles of the twelve years truce between Spain and the United Netherlands, which were concluded in

April,

April, 1609, were immediately printed by authority. The momentous treaties of the subsequent age were successively published, as they were produced by various events. But the first collection of public conventions, which comprehended the interests of the European nations, was published at Hanover, in 1693, by the illustrious Leibnitz, in two folio volumes, under the title of *Codex juris gentium diplomaticus*. Leibnitz, who was born at Leipsic, in 1646, raised himself by his genius and his labours to eminence among the high, and died in 1716, at the age of seventy.

During a busy age of frequent negotiation, the public curiosity demanded fresh gratification. In 1700, four folio volumes of *National Agreements* were published, under the inspection of James Bernard, who was born in Dauphiné; and, retiring into Switzerland and Holland, after the revocation of the edict of Nantz, became professor of philosophy at Leyden, and died in 1718. Thus, in the ardour of the public, and the interests of the booksellers, was laid the foundation of the *Corps Universel Diplomatique du Droit des Gens*. The labours of Bernard were expanded and improved by the cares of Du Mont. This vast collection appeared in 1726. Du Mont was also a French refugee, who, after serving in the armies of France, retired to Holland, and became historiographer to the emperor: after various publications, he died in 1726, having acquired the rank of baron. The booksellers at Amsterdam, willing to gratify the public taste, and to promote their own gains, found other workmen, when they determined to furnish a *Supplement* to the *Corps Diplomatique*. The celebrated Barbeyrac gave them, in 1739, a large volume, comprehending the ancient treaties, from the Amphictyonic times to the age of Charlemagne, which he had extracted from the authors of Greece and Rome, and from the monuments of antiquity. This is a work of vast and curious erudition. The performances of Bernard and Du Mont were only the labours of the hand: the volume of Barbeyrac was the elaborate production of the head. John Barbeyrac, who must not be confounded with his uncle Charles Barbeyrac, was born at Beziers, became professor of law first at Lausanne, and afterwards at Groningen, and finished his useful course in 1747. The booksellers had skilfully resolved to divide their intended publication into three parts: the first was the historical and chronological collection of Barbeyrac, which has been already mentioned, and which was designed as an introduction to the diplomatic code; the second was properly the *Supplement*, being an extension and continuance of the voluminous works of Bernard and Du Mont; and the third part was to consist of the ceremonial of the courts of Europe. The performance of the two last parts was given to Rousset, the historiographer of the prince of Orange, whose diligence

ligence and whose knowledge qualified him eminently for a task thus arduous and delicate.

‘ A complete collection of General Treaties must consist of the following books: 1st. Leibnitz’s Codex, in 1693; 2dly, The Corps Diplomatique, with its Supplement, in 1739, consisting of twenty volumes in folio, to which is annexed a copious index of matters; 3dly, St. Priest’s *Histoire de Traités de Paix du xvii Siècle, depuis la Paix de Vervins jusqu'à celle de Nimé-gue, 1725*, 2 vol. in folio; and 4thly, of the *Negociations Sécretes, touchant la Paix de Munster et d’Osnabrug, 1725*, 4 vol. in folio. These ample collections begin with the establishment of the Amphictyons, 1496 years before the birth of Christ, being the most ancient treaty which is to be met with in the records of time; and end with the pacification of the troubles of Geneva, in May, 1738.—Such, then, is the vast mass of papers which have originated from the restlessness, or the wisdom, of Europe; and which every one must possess, who is ambitious of extensive knowledge, with regard to the discordant interests of the European Powers.’

To these must be added the histories of particular negotiations, and Rouffet’s ‘ *Acts, Negociations, and Treaties, from 1713 to 1748*, in twenty-five octavo volumes.

Our author, in his list, proceeds from the north, and **Russia** is his first object. The most early privileges granted to the English merchants are to be found in Hackluyt’s voyages, dated 1555, and the index, with accurate references, are continued down to the treaty in 1766; a copy of that treaty, from the treaty in 1785, is subjoined. The Russian edict, for establishing ‘ *an unlimited trade*’ in the empress’s new dominions on the Black Sea, is also inserted at length.

Our author proceeds to **Sweden**, and his list of treaties reaches from 1654 to 1666. This was the last treaty; but the more important ones are, as usual, printed entire.

The first treaty with **Denmark** is in 1640, and it reaches to 1739; of these the more important ones are subjoined at length. The only convention, after 1739, was an explanation of one article of the commercial treaty of 1670, respecting warlike stores.

The treaties with the **Hanse Towns** extend from 1435 to 1731: the principal ones published relate to the herring-trade. With **Prussia** there are treaties only from the beginning of this century, but since that time they are pretty numerous.

The first treaty with the **States-General** is in 1578, and the last is well known to have been in 1788. With **Austria** our connection began in 1496, and ended in 1743; with **France** so early as 1259, and the explanatory convention of 1787 is

the

the last public document of this kind. A copy of the famous family compact is subjoined.

In his progress southward, Mr. Chalmers proceeds, in the second volume, to Spain, giving a reference to or printing at length the various treaties from 1604 to 1786; to Portugal, from 1643 to 1763; to Sardinia, from 1669 to 1748; to Tuscany, from 1490 to 1718, adding particularly the 'Stipulation' for Leghorn to remain a free port; to the two Sicilies, from 1604 to 1738; and to Genoa and Venice, from 1316 to 1748.

In Africa, the connection of England with Algiers, Tunis, and Tripoli, we perceive reaches from 1662 to 1762. With the Porte the treaties extend from 1641 to 1675.

In Asia, the treaties with Bengal and Oude are from 1757 to 1788; with the Nizam, from 1759 to 1768; with Arcot, from 1763 to 1787; with Tanjour, from 1771 to 1787; and with Hyder or Tippoo, from 1763 to 1784.

With America there was only one treaty, that of 1783.

We have given this summary account chiefly to show the extent of our author's labours, and the great utility of this collection. To have mentioned the particular treaties here printed, to have engaged in the examination of the policy of each, or of the utility of our connections with any particular court, would have extended our article too far, and have been unsuitable to our present attempt. We have said enough to give our readers a proper idea of the contents of these volumes, and from the best examination which our situation and circumstances allow, we think our author's accuracy unimpeachable.

A Short Review of Mr. Pitt's Administration. 8vo. 2s.
Ridgway.

THIS is one of the most superficial pamphlets we have had the misfortune to examine. The author has not even the merit of inventing new scandal, but contents himself with stringing together what has been retailed and detailed in certain newspapers and pamphlets against the minister, from the commencement of his administration. Mr. Pope has characterised such authors and their writings many years ago.

Dulness with transport ey'd the lively dunce,
Rememb'ring she herself was Pertness once.

That our readers may be enabled to judge for themselves, we shall present them with an extract, in which the pamphleteer employs the true cant of a political scribbler.

Speaking of the revenue, he says, 'Here we meet the minister in his strong hold, his 'vantage ground. Here, at least, he is happy, "dans la Rose je fleurie." The reader need not be apprehensive,

hensive, that in turning over these pages, he will be troubled with pounds, shillings, and pence; with the algebra of the treasury. In the light I consider it, the revenue is no longer a question of arithmetic. Mr. Pitt asserts that the revenue is in a most flourishing condition; Mr. Sheridan denies it. Who shall decide when doctors disagree? *Non nostrum est tantas componere lites.* There must, however, be something rotten, something doubtful, something odd, in so striking a difference upon a subject of science, where certainty is proverbial and indisputable. The grand doubt may teach us this certain truth, that we are come to the end of the present mode of collecting our resources, that the system is exhausted. When our revenue is computed upon contingencies that may never happen, upon events that may be contradicted by others; upon peace establishments that may be subverted by war, or by war establishments in peace; when we cannot pull off our hats without saluting the stamp-office, when our hands are gyved by the treasury, and when taxation talks of hunting out wealth from the good “kissing carrion” in the dog-kennel, we may well say the end of all is come. Hence gloomy politicians have foretold the revolution of France in England, the fall of empire, and the bankruptcy of the state. That surely is something more than a question of arithmetic. But as I humbly conceive these gentlemen's fears may have outrun their judgment, that their views have been contracted by a present state of things, and that they have mistaken an end of the present system of taxation for an end of our real resources, I shall not unite with them in gratifying my countrymen with the pleasant prediction of their country's ruin.—They may perhaps have been led into this deception by the minister himself, who seems, even in these times of peaceful contemplation, to have confined the views of government within the same short-sighted circle of ancient and obsolete taxation that prevailed in less opulent, but less needy times. When he has been in want of money, he has taxed the sportsmen of flying game, where the tax is as uncertain as the property; he has added a little to this and a little to that, where before there was too much; he has darkened our day-lights and excised our candles, and has relied on resources incapable of being collected—a dead letter in our statute-book—the revenue of the printer.—Such has been the system of Mr. Pitt.

‘ Seven years of uninterrupted peace might have afforded the means of preventing what is not an evil in prospect, but one that is pressing and immediate; an evil that does not require the ingenuity of a Sheridan to discover, but does require all the ingenuity of a Pitt to palliate; for even he does not deny the necessity of a radical alteration, and if he did, the first year of a war would see him retract it—this minister of all days; this patriot in power; this minister out of place.

‘ Method, not means, are wanting ; opulence is still discernible, greater than at any former period : opulence is still variously diffused, though poverty may press upon many. Thus variously diffused, it is capable of some way to fix contribution on those who are able to contribute. Far be it from me to assume the duty or the knowledge of a chancellor of the exchequer. But are there no ways of making the land proprietors contribute an additional relief (leaving the present as it stands) in a more equal manner ? And would they not prefer it to other indirect modes of taxation, that impoverish them more, without enriching the state so much ? Is not the poor’s rate high and vast in its amount, and greatly misapplied, an object worthy notice as a subject of revenue, still more than as a subject of law and government ? Are not the roads worth travelling over by the chancellor of the exchequer ? Is there no way of getting at the immense incomes of the monied men, without hurting public credit, but by taxing expences, which fall equally upon those who are with as without money in the funds ? And would the stockholder tremble at paying a trifle when bankruptcy is thundering in his ears.’

As this author accuses Mr. Pitt of levying money on the nation too freely, though with the authority of parliament, we may ask by what authority he himself attempts to levy two shillings on the public, for a quantity of printed paper usually sold for one shilling ? The answer is very obvious, and redounds equally to the praise of the author and the bookseller : the former was exhausted of ideas, and the latter kindly steps in to his aid, with a catalogue consisting of eight pages, to swell the appearance of his immaculate and public-spirited production.

Voyages and Travels of an Indian Interpreter and Trader, describing the Manners and Customs of the North American Indians ; with an Account of the Posts situated on the River St. Laurence, Lake Ontario, &c. To which is added, a Vocabulary of the Chippeway Language, &c. &c. By J. Long. 4to. 12s. Boards. Robson. 1791.

VOYAGES and Travels among rude nations, when related by men of veracity, afford rational entertainment to every reader ; and philosophers have been not a little indebted for their theory, to information drawn from this source. The author of the work before us, from the general strain of his narrative, seems intitled to our confidence. He set out on his voyage to North America in the year 1768. On his arrival at Montreal, he was placed under the care of a very respectable merchant, to learn the Indian trade, which is the chief support of the town. He soon acquired a competent knowledge of the Mohawk language, and afterwards resided

for some time in an Indian village, called Cahnuga, or Cock-nawa, situated about nine miles from Montreal, on the south side of the river St. Laurence.

The savages of this nation are called the praying Indians, from the circumstance of their chiefs wearing crucifixes, and going through the streets of Montreal with their beads, begging alms. The village contains about two hundred houses, which, though chiefly built of stone, have a mean and dirty appearance. The inhabitants amount to about eight hundred, and, what is contrary to general observation on the population of the Indians, are continually increasing. Their religion is Catholic, and they have a French priest, who is, according to the appellation they give him, 'The Master of Life's Man.'

The author next gives an account of the Indians of the Five and Six Nations. The former of these he shews are not easily to be conquered; a remark which proves the necessity of preserving them in the British interest; and he observes, that no method will more effectually conduce to this end, than retaining in our hands such barriers as will enable us to afford them protection, and supply them with arms and ammunition, and other necessaries, in time of danger: The Mohawks are the most warlike of the Five Nations, and consist of near seven hundred warriors. This nation claims all the country south of the river St. Laurence to the Ohio, and down the Ohio to the Wabache, which lies to the westward of the state of Pennsylvania, near to the borders of Virginia.

The traveller afterwards gives an account of Indian scouts, and the manner of scalping; with which we shall not attempt to amuse our readers, and we hope it is unnecessary to instruct them.

Next follows an account of the character and disposition of the Connecedaga, or Rondaxe Indians; with remarks on the Iroquois and Cherokee nations. We are informed that no nation of the savages was ever more faithful to the British interest than that of the Connecedagas; not even the Mohawks, whose fidelity is become almost proverbial. The Iroquois, our author tells us, laugh at the idea of obedience to kings; for they cannot reconcile submission with the dignity of man. Every individual is a sovereign in his own mind; and as he conceives he derives his freedom from the great Spirit alone, he cannot be induced to acknowledge any other power. They are so vindictive, that they carry their resentments with them to the grave, and bequeath them to their posterity.

In the account which the author gives of the Indian dances, he enumerates eleven kinds, of all which he was perfectly master, and frequently led the sett. With regard to personal strength, he informs us that the Indians are excelled by many;

and even in hunting, the Virginians equal them in every part of the chace. The savages, however, he admits to be extraordinary marksmen.

The traveller next describes Lake Superior, with the ceremony of Indian adoption ; in which the calamet, the wampum, and all the other paraphernalia, are brought into use. After a recital of the proceedings of a trading party, we are entertained with an account of the Indian manner of going to war, and a variety of other particulars, relative to the superstition, jealousy, &c. of the Indian nations.

The author afterwards proceeds upon a second expedition among the Nipecan Indians, where he meets with several adventures. The following extract affords a description of an Indian courtship.

‘ When an Indian wishes to take a wife, and sees one to his mind, he applies to the father of the girl, and asks his consent in the following words :

“ *Nocey, cunner kee darmissey kee darniss ne zargayyar kakaygo O awaterwarwardooffin caurween peccan weetey gammat ottertassefay memarjis mee mor.* ”

“ Father, I love your daughter, will you give her to me, that the small roots of her heart may entangle with mine, so that the strongest wind that blows shall never separate them.”

‘ If the father approves, an interview is appointed, for which the lover prepares by a perspiration ; he then comes into her presence, sits down on the ground, and smokes his pipe ; during the time of smoking, he keeps throwing small pieces of wood, of about an inch in length, at her, one by one, to the number of one hundred. As many as she can catch in a bark bowl, so many presents her lover must make to her father, which he considers as payment for his daughter. The young warrior then gives a feast, to which he invites all the family—when the feast is done, they dance and sing their war songs.—The merriment being over, and mutual presents exchanged between the lover and her relations, the father covers them with a beaver robe, and gives them likewise a new gun and a birch canoe, with which the ceremony ends.

‘ When the French became masters of Canada, the ceremony of marriage between the Savages was very fantastical.

‘ When a lover wished his mistress to be informed of his affection, he procured an interview with her, which was always at night, and in the presence of some of her friends ; this was conducted in the following manner :

‘ He entered the *wigwam*, the door of which was commonly a skin, and went up to the hearth on which some hot coals were burning ; he then lighted a stick of wood, and approaching his mistress, pulled her three times by the nose, to awaken her ; this was

was done with decency, and being the custom, the squaw did not feel alarmed at the liberty. This ceremony, ridiculous as it may appear, was continued occasionally for *two* months, both parties behaving during the time, in all other respects, with the greatest circumspection.

‘ The moment she becomes a wife, she loses her liberty, and is an obsequious slave to her husband, who never loses sight of his prerogative. Wherever he goes she must follow, and durst not venture to incense him by a refusal, knowing that if she neglects him, extreme punishment, if not death, ensues. The chief liberty he allows her is to dance and sing in his company, and is seldom known to take any more notice of her than of the most indifferent person: while she is obliged to perform the drudgery of life, which custom or insensibility enables her to do with the utmost cheerfulness.’

Our author favours us with an account of the method, which he tells us he was obliged to adopt, to quiet an old Indian woman, who was continually importuning him for liquor. He gave her, it seems, forty drops of the tincture of cantharides, with an equal quantity of laudanum, in a glass of rum; but with what view he gave the former of these ingredients, he has not been so obliging as to mention.

The Indians, he informs us, laugh at the Europeans for having only one wife, and that for life, as they conceive the Good Spirit formed them to be happy, and not to continue together unless their tempers and dispositions were congenial.

The contempt entertained of death, by some of those nations, is extraordinary.

‘ The Shawano Indians, says our author, captured a warrior of the Anantoojah nation, and put him to the stake, according to their usual cruel solemnities: having unconcernedly suffered much torture, he told them, with scorn, they did not know how to punish a noted enemy; therefore he was willing to teach them, and would confirm the truth of his assertion if they allowed him the opportunity. Accordingly he requested of them a pipe and some tobacco, which was given him; as soon as he had lighted it, he sat down, naked as he was, on the women’s burning torches, that were within his circle, and continued smoking his pipe without the least discomposure: on this a head warrior leaped up, and said, they saw plain enough that he was a warrior, and not afraid of dying, nor should he have died, only that he was both spoiled by the fire, and devoted to it by their laws; however, though he was a very dangerous enemy, and his nation a treacherous people, it should be seen that they paid a regard to bravery, even in one who was marked with war streaks at the cost of many of the lives of their beloved kindred; and then, by way of favour, he with his

friendly tomahawk instantly put an end to all his pains. Though the merciful but bloody instrument was ready some minutes before it gave the blow, yet, I was assured, the spectators could not perceive the sufferer to change either his posture or his steadiness of countenance in the least.

‘ Death, among the Indians, in many situations is rather courted than dreaded, and particularly at an advanced period of life, when they have not strength or activity to hunt: the father then solicits to change his climate, and the son cheerfully acts the part of an executioner, putting a period to his parent’s existence.

‘ Among the northern Chippeways, when the father of a family seems reluctant to comply with the usual custom, and his life becomes burdensome to himself and friends, and his children are obliged to maintain him with the labour of their hands, they propose to him the alternative, either to be put on shore on some island, with a small canoe and paddles, bows and arrows, and a bowl to drink out of, and there run the risk of starving; or to suffer death according to the laws of the nation manfully. As there are few instances where the latter is not preferred, I shall relate the ceremony practised on such an occasion.

‘ A sweating-house is prepared in the same form as at the ceremony of adoption, and whilst the person is under this preparatory trial, the family are rejoicing that the Master of Life has communicated to them the knowledge of disposing of the aged and infirm, and sending them to a better country, where they will be renovated, and hunt again with all the vigour of youth. They then smoke the pipe of peace, and have their dog-feast: they also sing the grand medicine song, as follows:

“ *Wa baguarmisse Kitchee Mannitoo kaygait cockinnor nishinnor-bay ejey kee candan hapadgey kee zargetoone nishinnor-bay mornooch kee tarpenan nocey keen aighter, O, dependan nishinnor-bay mornooch towwarch weene ejey mishcoot pockcan tunnockay.* —The Master of Life gives courage. It is true, all Indians know that he loves us, and we now give our father to him, that he may find himself young in another country, and be able to hunt.”

‘ The songs and dances are renewed, and the eldest son gives his father the death-stroke with a tomahawk: they then take the body, which they paint in the best manner, and bury it with the war weapons, making a bark hut to cover the grave, to prevent the wild animals from disturbing it.’

Adultery, among the northern savages, we are told, is generally punished in a summary way by the husband, who either beats his wife very severely, or bites off her nose.

On the whole, the present work affords that entertainment which is expected in the account of the manners and customs of barbarous nations; but the author has in his view an object

of

of greater importance. His description of the country, and his observations relative to the trade with the inhabitants, must prove highly useful to such as would prosecute any commercial pursuits in that quarter of the world; and his large vocabulary of the Chippeway language must greatly conduce to the same purpose. The volume is beautifully printed, on a remarkably fine paper, and accompanied with a map.

A critical Pronouncing Dictionary and Expositor of the English Language. In which not only the Meaning of every Word is clearly explained, and the Sound of every Syllable distinctly shown, but where Words are subject to different Pronunciations, the Reasons for each are at large displayed, and the preferable Pronunciation is pointed out. To which are prefixed, Principles of English Pronunciation. By J. Walker. 4to. 1l. 1s. Boards. Robinsons. 1791.

NEXT to the propriety and precision of language, nothing is of greater importance in speech than a just elocution; and amongst the numerous grammarians of late years, we know of none that has treated this interesting subject more ably or more ingeniously than the author now before us. Those who are not strangers to the success with which Mr. Walker has taught the principles of elocution to his pupils, *viva voce*, will congratulate themselves and the public on the appearance of a Dictionary, which is calculated to establish and diffuse a right pronunciation of the English language. The great attention bestowed in the execution of this design, is sufficiently evident: the author has not only consulted the works of all the most approved writers on the subject, but has examined their different opinions with such acuteness, and delivered his own with such modesty, supported however by arguments, as reflect equal credit on his judgment and candour. Of the general utility of a work of this nature, and of the rules by which it is conducted, we cannot give our readers a more clear idea, than by laying before them the following extract from the preface.

‘ — The utility of a work of this kind is not confined to those parts of language where the impropriety is gross and palpable; besides those imperfections in pronunciation, which disgust every ear not accustomed to them, there are a thousand insensible deviations, in the more minute parts of language, as the unaccented syllables may be called, which do not strike the ear so forcibly as to mark any direct impropriety in particular words, but occasion only such a general imperfection as gives a bad impression upon the whole. Speakers with these imperfections pass very well in com-

mon conversation; but when they are required to pronounce with emphasis, and for that purpose to be more distinct and definite in their utterance, here their ear fails them; they have been accustomed only to loose cursory speaking, and for want of a firmness of pronunciation, are like those painters who draw the muscular exertions of the human body without any knowledge of anatomy. This is one reason, perhaps, why we find the elocution of so few people agreeable when they read or speak to an assembly, while so few offend us by their utterance in common conversation. A thousand faults lie concealed in a miniature, which a microscope brings to view; and it is only by pronouncing on a larger scale, as public speaking may be called, that we prove the propriety of our elocution. As, therefore, there are certain deviations from analogy which are not at any rate tolerable, there are others which only, as it were, tarnish the pronunciation, and make it less brilliant and agreeable. There are few who have turned their thoughts on this subject without observing, that they sometimes pronounce the same word or syllable in a different manner; and as neither of these manners offend the ear, they are at loss to which they shall give the preference; but as one must necessarily be more agreeable to the analogy of the language than the other, a display of these analogies, in a dictionary of this kind, will immediately remove this uncertainty; and in this view of the variety we shall discover a fitness in one mode of speaking, which will give a firmness and security to our pronunciation, from a confidence that it is founded on reason, and the general tendency of the language.

‘ But, alas! reasoning on language, however well founded, may be all overturned by a single quotation from Horace :

— — — usus

Quem penes arbitrium est, & jus & norma loquendi.

‘ This, it must be owned, is a succinct way of ending the controversy; and by virtue of this argument we may become critics in language without the trouble of studying it. Not that I would be thought, in the most distant manner, to deny, that Custom is the sovereign arbiter of language. Far from it. I acknowledge its authority, and know there is no appeal from it; I wish only to dispute where this arbitrer has not decided; for if once Custom speaks out, however absurdly, I sincerely acquiesce in its sentence.

‘ But what is this custom to which we must so implicitly submit? Is it the usage of the greater part of speakers, whether good or bad? This has never been asserted by the most sanguine abettors of its authority. Is it the majority of the studious in schools and colleges, with those of the learned professions, or of those who, from their elevated birth or station, give laws to the refinements and elegances of a court? To confine propriety to the latter, which is too often the case, seems an injury to the former;

who,

who, from their very profession, appear to have a natural right to a share, at least, in the legislation of language, if not to an absolute sovereignty. The polished attendants on a throne are as apt to depart from simplicity in language as in dress and manners; and novelty, instead of custom, is too often the *jus & norma loquendi* of a court.

Perhaps an attentive observation will lead us to conclude, that the usage, which ought to direct us, is neither of these we have been enumerating, taken singly, but a sort of compound ratio of all three. Neither a finical pronunciation of the court, nor a pedantic Græcism of the schools, will be denominated respectable usage, till a certain number of the general mass of speakers have acknowledged them; nor will a multitude of common speakers authorise any pronunciation which is reprobated by the learned and polite.'

Immediately after the preface, we meet with Rules to be observed by the Natives of Ireland, in order to obtain a just pronunciation of English. The observations on this subject are chiefly extracted from Mr. Sheridan, who being a native of Ireland, had, therefore, the best opportunity of understanding the peculiarities of pronunciation in that kingdom. To these Mr. Walker has added some useful remarks of his own.

Next follow Rules to be observed by the Natives of Scotland for attaining a just pronunciation of the English. Our author observes, that the pronunciation which distinguishes the inhabitants of Scotland is of a very different kind from that of Ireland, and may be divided into the quantity, quality, and accentuation of the vowels. He farther observes, that besides the mispronunciation of single words, there is a tone of voice with which those words are accompanied, that distinguishes a native of Ireland or Scotland as much as an improper sound of the letters.

Besides a peculiarity of inflexion, which our author takes to be a falling circumflex, directly opposite to that of the Scotch (*Scots*), the Welch pronounce the sharp consonants and aspirations instead of the flat. We think the word *Scotch*, in the acceptation of a substantive noun, is erroneous. The proper gentilious name of the people of Scotland, both from etymology and vernacular use, is undoubtedly *Scots*; and the word *Scotch* is nothing more than a vulgar abbreviation of the adjective *Scottish*. We suspect that Mr. Walker has, in this instance, sacrificed his own opinion to common use; and we only regret that common use, when ill-founded, should receive any sanction from so respectable an authority.

That there are different pronunciations in the different counties of England, especially those remote from the capital, is well known; but to delineate all those is not the author's intention in the present work. He mentions, however, a few peculiarities of the Londoners, which are the more worthy of observation, as the pronunciation in the capital is considered as a model to the distant provinces. Of the faults of the Londoners, the first is the pronouncing *s* indistinctly after *ſt*.

‘ The letter *s* after *ſt*, from the very difficulty of its pronunciation, is often sounded inarticulately. The inhabitants of London, of the lower order, cut the knot, and pronounce it in a distinct syllable, as if *e* were before it; but this is to be avoided as the greatest blemish in speaking: the three last letters in *posts*, *fists*, *mists*, &c. must all be distinctly heard in one syllable, and without permitting the letters to coalesce. For the acquiring of this sound, it will be proper to select these nouns that end in *ſt* or *ſte*; to form them into plurals, and pronounce them forcibly and distinctly every day. The same may be observed of the third person of verbs ending in *ſt* or *ſts*, as *perfests*, *wastes* *hastes*, &c.,

‘ For this purpose, the *Rhyming Dictionary*, where all the words are arranged according to their terminations, will be found peculiarly useful.

‘ **SECOND FAULT.—Pronouncing *w* for *v*, and *inversely*.**

‘ The pronunciation of *v* for *w*, and more frequently of *w* for *v*, among the inhabitants of London, and those not always of the lower order, is a blemish of the first magnitude. The difficulty of remedying this defect is the greater, as the cure of one of these mistakes has a tendency to promote the other.

‘ Thus, if you are very careful to make a pupil pronounce *veal* and *winegar*, not as if written *weal* and *winegar*, you will find him very apt to pronounce *wine* and *wind*, as if written *wine* and *wind*. The only method of rectifying this habit seems to be this: let the pupil select from a dictionary, not only all the words that begin with *v*, but as many as he can of those that have this letter in any other part. Let him be told to bite his under lip while he is sounding the *v* in those words, and to practise this every day till he pronounces the *v* properly at first sight: then, and not till then, let him pursue the same method with the *w*; which he must be directed to pronounce by a pouting out of the lips without suffering them to touch the teeth. Thus, by giving all the attention to only one of these letters at a time, and fixing by habit the true sound of that, we shall at last find both of them reduced to their proper pronunciation in a shorter time than by endeavouring to rectify them both at once.

‘ **THIRD**

‘THIRD FAULT.—Not sounding *h* after *w*.

‘The aspirate *h* is often sunk, particularly in the capital, where we do not find the least distinction of sound between *while* and *wile*, *whet* and *wet*, *where* and *were*, &c. The best method to rectify this is, to collect all the words of this description from a dictionary, and write them down; and instead of the *wh* to begin them with *hoo* in a distinct syllable, and so to pronounce them. Thus let *while* be written and sounded *hoo-ile*; *whet*, *hooet*; *where*, *hoo-are*; *whip*, *hoo-ip*, &c. This is no more, as Dr. Lowth observes, that placing the aspirate in its true position before the *w*, as it is in the Saxon, which the words come from; where we may observe, that though we have altered the orthography of our ancestors, we have still preserved their pronunciation.

‘FOURTH FAULT.—Not sounding *h* where it ought to be sounded, and inversely.

‘A still worse habit than the last prevails, chiefly among the people of London, that of sinking the *h* at the beginning of words where it ought to be sounded, and of sounding it, either where it is not seen, or where it ought to be sunk. Thus we not unfrequently hear, especially among children, *heart* pronounced *art*, and *arm*, *barm*. This is a vice perfectly similar to that of pronouncing the *v* for the *w*, and the *w* for the *v*, and requires a similar method to correct it.

‘As there are so very few words in the language where the initial *h* is sunk, we may select these from the rest, and, without setting the pupil right when he pronounces these, or when he prefixes the *h* improperly to other words, we may make him pronounce all the words where *h* is sounded, till he has almost forgot there are any words pronounced otherwise. Then he may go over those words to which he improperly prefixes the *h*, and those where the *h* is seen but not sounded, without any danger of an interchange. As these latter words are but few, I shall subjoin a catalogue of them for the use of the learner. *Heir*, *heiress*, *herb*, *herbage*, *honest*, *honesty*, *honestly*, *honour*, *honorable*, *honorable*, *hospital*, *hostler* *hour*, *hourly*, *humble*, *humbly*, *bumbles*, *humour*, *humourist*, *humourous*, *humorously*, *humoursome*. Where we may observe, that *humour*, and its compounds not only sink the *h*, but sound the *u* like the pronoun *you*, or the noun *yew*, as if written *yewmours*, *yewmorous*, &c.’

After giving directions to foreigners for attaining a right knowledge of the English language, the author delivers a series of useful remarks on the pronunciation of every letter in the alphabet, the combination of particular letters, and on accent, quantity, and syllabication; the whole amounting to 545 aphoristical paragraphs.

That

That our readers may be enabled to judge of the execution of the Dictionary, we shall lay before them a few of such articles as are not only the most differently pronounced, but which most divide the opinions of grammarians. The first of these articles is *Authority*.

‘ **AUTHORITY**, *åw-thôr'ë-të*. *f.*

‘ Legal power; influence, credit; power, rule; support, countenance; testimony; credibility.

‘ This word is sometimes pronounced as if written *autority*. This affected pronunciation is traced to a gentleman who is one of the greatest ornaments of the law, as well as one of the politest scholars of the age, and whose authority has been sufficient to sway the bench and the bar, though *author*, *authentic*, *theatre*, *theory*, &c. and a thousand similar words where the *th* is heard, are constantly staring them in the face.

‘ The public ear, however, is not so far vitiated as to acknowledge this innovation; for though it may with security, and even approbation, be pronounced in Westminster Hall, it would not be quite so safe for an actor to adopt it on the stage.

‘ I know it will be said that *authoritas* is latter Latin, that the purer Latin never had the *b*; and that our word, which is derived from it, ought, on that account, to omit it. But it may be observed, that, according to the best Latin critics, the word ought to be written *auctoritas*, and that, according to this reasoning, we ought to write and pronounce *auctority* and *auctor*: but this, I presume, is farther than these innovators would choose to go. The truth is, such singularities of pronunciation should be left to the lower order of critics; who, like coxcombs in dress, would be utterly unnoticed if they were not distinguished by petty deviations from the rest of the world.’

The next article we shall select is *Satiety*.

‘ **SATIETY**, *så-ti'ë-të*. *f.*

‘ Fulness beyond desire or pleasure, more than enough, state of being palled.

‘ The sound of the second syllable of this word has been grossly mistaken by the generality of speakers; nor is it much to be wondered at. *Ti*, with the accent on it, succeeded by a vowel, is a very uncommon predicament for an English syllable to be under; and therefore it is not surprising that it has been almost universally confounded with an apparently similar, but really different assemblage of accent, vowels, and consonants. So accustomed is the ear to the aspirated sound of *t*, when followed by two vowels, that whenever these appear we are apt to annex the very same sound to that letter, without attending to an essential circumstance in this word,

word, which distinguishes it from every other in the language. There is no English word of exactly the same form with *satiety*, and therefore it cannot, like most other words, be tried by its peers; but analogy, that grand resource of reason, will as clearly determine, in this case, as if the most positive evidence were produced.

‘ In the first place, then, the sound commonly given to the second syllable of this word, which is that of the first of *silence*, as if written *sa-si-e-ty*, is never found annexed to the same letters throughout the whole language. *Ti*, when succeeded by two vowels, in every instance but the word in question, sounds exactly like *sh*: thus *satiate*, *expatiate*, &c. are pronounced as if written *sa-sh-e-ate*, *ex-pa-sh-e-ate*, &c. and not *sa-se-ate*, *ex-pa-si-ate*, &c. and therefore if the *t* must be aspirated in this word, it ought at least to assume that aspiration which is found among similar assemblages of letters, and instead of *sa-si-ety*, it ought to be sounded *sa-shi-e-ty*: in this mode of pronunciation a greater parity might be pleaded; nor should we introduce a new aspiration to reproach our language with needless irregularity. But if we once cast an eye on those conditions, on which we give an aspirated sound to the dentals, we shall find both these methods of pronouncing this word equally remote from an analogy. In almost every termination where the consonants, *t*, *d*, *c*, and *s*, precede the vowels, *ea*, *ia*, *ie*, *io*, &c. as in *martial*, *soldier*, *suspicion*, *confusion*, *anxious*, *prescience*, &c. the accent is on the syllable immediately before these consonants, and they all assume the aspiration; but in *elephantiasis*, *hendiadys*, *society*, *anxiety*, *society*, &c. the accent is immediately after these consonants, and the *t*, *d*, *c*, and *x*, are pronounced as free from aspiration as the same letters in *tiar*, *diet*, *cion*, *Ixion*, &c. the position of the accent makes the whole difference. But if analogy in our own language were silent, the uniform pronunciation of words from the learned languages, where these letters occur, should be sufficient to decide the dispute. Thus in *elephantiasis*, *Miltiades*, *satietas*, &c. the antepenultimate syllable *ti* is always pronounced like the English noun *tie*; nor should we dream of giving *ti* the aspirated sound in these words, though there would be exactly the same reason for it as in *satiety*: for, except in very few instances, as we pronounce Latin in the analogy of our own language, no reason can be given why we should pronounce the antepenultimate syllable in *satietas* one way, and that in *satiety* another.

‘ I should have thought my time thrown away, in so minute an investigation of the pronunciation of this word, if I had not found the best judges disagree about it. That Mr. Sheridan supposed it ought to be pronounced *sa-si-e-ty*, is evident from his giving this

word as an instance of the various sounds of *t*, and telling us that here it sounds *s*. Mr. Garrick, whom I consulted on this word, told me, if there were any rules for pronunciation, I was certainly right in mine: but that he and his other literary acquaintance pronounced it in the other manner. Dr. Johnson likewise thought I was right, but that the greater number of speakers were against me; and Dr. Lowth told me, he was clearly of my opinion, but that he could get no body to follow him. I was much flattered to find my sentiments confirmed by so great a judge, and much more flattered when I found my reasons were entirely new to him.

‘ But, notwithstanding the tide of opinion was some years ago so much against me, I have since had the pleasure of finding some of the most judicious philologists on my side. Dr. Kenrick and Mr. Perry mark the word as I have done; and Mr. Nares is of opinion it ought to be so pronounced, though for a reason very different from those I have produced, namely, in order to keep it as distinct as be from the word *society*. While Mr. Fry frankly owns, it is very difficult to determine the proper pronunciation of this word.

‘ Thus I have ventured to decide where “Doctors disagree,” and have been induced to spend so much time on the correction of this word, as the improper pronunciation of it does not, as in most other cases, proceed from an evident caprice of custom, as in *busy* and *bury*, or from a desire of drawing nearer to the original language, but from an absolute mistake of the principles on which we pronounce our own.’

The word *Bigoted* likewise claims particular attention.

‘ **BIGOTED**, *big'gút-éd.* a. Blindly prepossessed in favour of something.

‘ From what oddity I know not, this word is frequently pronounced as if accented on the last syllable but one, and is generally found written as if it ought to be so pronounced, the *t* being doubled, as is usual when a participle is formed from a verb that has its accent on the last syllable. Dr. Johnson, indeed, has very judiciously set both orthography and pronunciation to rights, and spells the word with one *t*, though he finds it with two in the quotations which he gives us from Garth and Swift. That the former thought it might be pronounced with the accent on the second syllable, is highly presumable from the use he makes of it, where he says:

“ Bigotted to this idol, we disclaim
Rest, health, and ease, for nothing but a name.”

‘ For if we do not lay the accent on the second syllable here, the verse will be unpardonably rugged. This mistake must certainly take

take its rise from supposing a verb which does not exist, namely, to *bigot*; but as this word is derived from a substantive, it ought to have the same accent; thus, though the word *ballot* and *billet* are verbs as well as nouns, yet as they have the accent on the first syllable, the participial adjectives derived from them have only one *t*, and both are pronounced with the accent on the first syllable, as *balloted*, *billited*. *Bigoted* therefore ought to have but one *t*, and to preserve the accent on the first syllable.'

To these we shall subjoin *Inimical*.

• **INIMICAL**, *în-îm'î kâl*, or *în-é-mî'kâl*. a. Hostile, contrary, repugnant.

• This word sprung up in the House of Commons about ten years ago, and has since been so much in use as to make us wonder how we did so long without it. It had, indeed, one great recommendation, which was, that it was pronounced in direct opposition to the rules of our own language. An Englishman, who had never heard it pronounced, would, at first sight, have placed the accent on the antepenultimate, and have pronounced the penultimate *i* short; but the vanity of showing its derivation from the Latin *inimicus*, where the penultimate *i* is long; and the very oddity of pronouncing this *i* long in *inimical* made this pronunciation fashionable. I know it may be urged, that this word, with respect to sound, was as great an oddity in the Latin language as it is in ours; and that the reason for making the *i* long was its derivation from *amicus*. It will be said too, that, in other words, such as *aromaticus*, *tyrannicus*, *rheticus*, &c. the *i* was only terminational; but in *inimicus* it was radical, and therefore intitled to the quantity of its original, *amicus*. In answer to this, it may be observed, that this was no reason for placing the accent on that syllable in Latin. In that language, whenever the penultimate syllable was long, whether radical or terminational, it had always the accent on it. Thus the numerous terminations in *alis* and *ator*, by having the penultimate *a* long, had always the accent on that letter, while the *i* in the terminations *ilis* and *itas* never had the accent, because that vowel was always short. But allowing for a moment that we ought servilely to follow the Latin accent and quantity in words which we derive from that language; this rule, at least, ought to be restricted to such words as have preserved their Latin form, as *orator*, *senator*, *character*, &c. yet in these words we find the Latin penultimate accent entirely neglected, and the English antepenultimate adopted. But if this Latin accent and quantity should extend to words from the Latin that are anglicised, then we ought to pronounce *divinity*, *de-vine-e-ty*; *severity*, *se-vere-e-ty*; and *urbanity*, *ur-bane-e-ty*. In short, the whole language

guage would be metamorphosed, and we should neither pronounce English nor Latin, but a Babylonish dialect between both.'

These instances are sufficient to shew the utility of the present work, and the great judgment with which it is conducted. Our readers will observe, that the pronunciation of the different syllables is marked by figures, an explanation of which is prefixed to the Dictionary. It occurs to us, that the accentual mark placed upon the syllable which bears the stress, might have, in general, specified the pronunciation in a more easy and simple manner; though we cannot disapprove of any method which is adopted for the purpose of precision. On the whole, this elaborate Dictionary may be considered as a valuable supplement to that of Dr. Johnson, to whose extensive erudition and genius Mr. Walker does ample justice, without omitting to notice his defects. It is, however, a complete work in itself, giving not only the right pronunciation, but the sense of every word, and the proper method of spelling them.

The School for Arrogance: a Comedy. As it is acted at the Theatre Royal, Covent Garden. By Thomas Holcroft. 8vo. 1s. 6d. Robinsons. 1791.

THE success of an author on the stage does not always imply that he must be equally successful in the closet. Like the trunkmaker in the upper gallery, we sometimes confirm the plaudits of the theatre by a single stroke, or join in them by our less vociferous commendations: but we sometimes dissent; and, when the magic of the scene is at an end, when the voice of fashion, the influence of a performer, or the splendor of the decorations lose their effect, we find our 'still voice' confirmed by the equally silent fiat of public approbation. In the present instance, we cannot, unreservedly, either commend or blame. The play possesses merits and faults, which we shall point out or praise with equal impartiality.

The Count is represented as a man of rank and of dignity; but with the high sense of honour which shrinks from suspicion, with the dignity that shuns familiarity with vice or with folly, he unites the meaner pride of rank, of family, and personal importance. He seems designed to be of this mixed character; and while, in his better moments, he is an object of respect, we are interested for his reformation, and hear of every instance of his good fortune with pleasure.

• The

‘ The comedy of *Le Glorieux*, by M. Nericault Destouches, is the basis on which *The School for Arrogance* has been formed. From that I have taken the plan, several of the characters, and some of the scenes. Difference of arrangement, additional incidents, and what I deem to be essential changes of character, have all been introduced. The count has but little resemblance to the original: Lucy and Mac Dermot none. Lady Peckham is a new character, and was first suggested by a friend; who, conceiving highly of the contrast which exists in life, between the pride of rank and the pride of riches, industriously sought to stimulate and rouse my imagination.’

Mr. Holcroft deserves, therefore, much credit for this well drawn and well supported character, and it is very judiciously contrasted with the vulgar city lady, who thinks every magnificence exhausted in the Monument, and every elegance in a lord mayor’s dinner. Characters of this kind are frequent on the stage; but in no instance is the folly so conspicuous as in the contrast before us. We shall select the scene where the Count, compelled to apologise for his former rudeness, expresses all the discordant feelings which real pride, and a forced respect, must excite. The lady is drawn with equal spirit, and expresses, with great fidelity, the triumph of vulgar superiority.

‘ *Enter Lady Peckham.*

‘ *Count.* Madam [Bowing.]—When I last had the honour—of a—an interview with your ladyship, I—I am afraid—I might possibly be inadvertently betrayed into—some warmth.

‘ *Lady P.* Vhy, sir, seeing as how my son tells me you are a real nobleman, and not von of the rifraff sortin hunter fellers, if so be as you thinks fit to make proper ’pologies, vhy, Sir, I—I—

‘ *Count.* To a lady, madam, every apology may be made. Any concessions therefore—

‘ *Lady P.* Oh, sir, as for that there, I vants nothing but vhat is right and downright. And I supposes, sir, you are verry villin to own that an outlandish foriner must think himself highly honour-ed, by a connexion with an English family of distinction. Because that I am sure you cannot deny. And that it vus a most perumptery purceedin in you, being as you are but a Frenchman, or of an Irish generation at best, to purtend to the hand and sortin of miss Loocy Peckham, without my connivance.

‘ *Count.* Madam !

‘ *Lady P.* As I tells you, sir, I am upright and downright. So do you, or do you not?

‘ *Count.*

‘ *Count.* Madam! — I am ready to acknowledge that the charms of your daughter’s mind, and person, are equal to any rank!

‘ *Lady P.* Her mind and person, indeed! No, sir! Her family and fortune! — And I believe, sir, now you are come to your proper senses, you will own too that no outlandish lord, whatever, can uphold any comparagement with the Peckham family and connexions!

‘ *Count.* [With great warmth and rapidity.] Madam, though I am ready to offer every excuse which can reasonably be required, for any former inadvertency; yet, madam, no consideration whatever shall lead me—I say, madam, my own honour, a sense of what is due to my ancestors, myself, and to truth—that is, madam—No! The world, racks, shall not force me to rank my family with yours.

‘ *Lady P.* Vhy, sir! What is it that you are talking of? Rank my family with yours, indeed! Marry come up! No, to be sure! I say rank! I knows wery vell what is my doo: and that there, sir, is the thing that I vould have you for to know! And I insist upon it, sir, that you shall know it; and shall own that you knows it; or, sir, I rewoke every thing I have condescended to specify with my son! So do you, sir, or do you not?

‘ *Count.* Madam—What, Madam?

‘ *Lady P.* Do you depose, that outlandish foriners are all beggars, and slaves; and that von Englishman is vorth a hundred Frenchmen?

‘ *Count.* Madam whatever you please. [Bows.]

‘ *Lady P.* Oh! Wery vell! — And do you purdict that this here city is the first city in the whole world?

‘ *Count.* I—I believe it is, Madam.

‘ *Lady P.* Oh! Wery vell! — And that the Moniment, and the Tower, and Lununbridge, are most magnanimous and superfluous buildings?

‘ *Count.* Madam—

‘ *Lady P.* I’ll have no circumbendibus! Are they, or are they not?

‘ *Count.* Your ladyship is pleased to say so. [Bows.]

‘ *Lady P.* To be sure I does! Because I knows it to be troo! And that the wretches in forin parts are all fed upon bran; seeing as how there is no corn?

‘ *Count.* As your ladyship thinks! [Bows.]

‘ *Lady P.* And that the whole country could not purwide von lord mayor’s feast?

‘ *Count.* I—Certainly not, Madam: they have few turtle and no aldermen.

‘ *Lady P.* Ah! A pretty country, indeed! No aldermen! And

And that it woud be the hite of pursumption, in you, for to go for to set yourself up as my equal? Do you own that?

‘Count. [Passionately] No, Madam!

‘Lady P. Sir!

‘Count. No force, no temptation shall induce me so to dis-honour my great progenitors!

‘Lady P. Vhy, sir!

‘Count. My swelling heart can hold no longer! Honour re-volts at such baseness! Patience itself cannot brook a fallacy so glaring! No! Though destruction were to swallow me, I would assert my house's rights, and its superior claims!

‘Lady P. Wery vell, sir! Wastly vell, sir! And I vould have you for to know, sir, while my name is my lady Peckham, I vill disert my houses rights, and claims! That I despises all!—Ha! ha!—Ha! Wery fine, indeed! Am I to be sent here to be hectored, and huffed, and bluffed, and bullied, and bounced, and blustered, and brow-beat, and scoffed, and scouted, and—Ha!’

The city knight differs little from his predecessors on the stage; sir Samuel Sheepy is an inconsistent compound of respectful timidity to the ladies, and determined courage in other situations. In the closet he is far from appearing a character well drawn, or properly supported. Mac Dermot too, the honest Irishman, is much too servile. He ought to have been represented as the only person who dared to tell the count of his failings; and his frankness should have been rendered supportable to the haughty arrogance of his master, from long attachment and tried fidelity. Edmund and Lydia are a pair of insipid lovers, and the count's father seems to have adopted a plan equally unreasonable and impolitic. But as almost the whole business of the play consists in the scenes between the count, sir Paul, and lady Peckham, the little errors in the other parts are far from being glaring or injurious to the pleasure which the spectators and the readers will feel from the whole.

The story is well conducted, and the attention very artfully kept up; in short, without the assistance of stage-machinery, the modern method of elevating and surprising; without the assistance of the painter, or more than common aid from the scene-shifters, this comedy will interest and please the attentive spectator: the principal errors seem to be copied from the original.

*A Treatise on the Digestion of Food. By G. Fordyce, M.D.
F. R. S. 8vo. 4s. sewed. Johnson. 1791.*

THIS Treatise contains the substance of the Gulstonian Lectures, lately delivered by Dr. Fordyce. The subject which he chose was digestion, and it is but common justice

March, 1791.

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to declare, that this function has never hitherto been so comprehensively, so clearly, and so accurately explained. We mean not to say that our author's theory, or rather his deduction from facts, is wholly unexceptionable; for we may perhaps show that, in his examination of the secreted fluids, he has not sufficiently attended to the state of the air in each, and, in his account of digestion, has not allowed that degree of dissolvent power, which the fluids of that cavity really possess. In his eagerness to destroy the system of solution, he seems to have overlooked it too much.

The first part of the work before us contains an anatomical description of the stomach, which appears to be very correct and judicious. Dr. Fordyce has, however, omitted to remark, that, when the stomach is distended, the greater and lesser curvature may, from their situation, be more properly styled the anterior and posterior curvatures; a circumstance of more importance, as it gives a more satisfactory explanation of the appearance and feeling of the stomach through the integuments, when distended with wind. The structure and situation of the pylorus are explained with singular precision, and it will be obvious that, when the stomach is distended, any passage through the pylorus is proportionally more difficult. In cases of flatus, Dr. Fordyce thinks that the stomach is sometimes distended unequally. When this happens, however, it is connected with spasm in that organ, and is of short duration. The description of the interior surface of the stomach and duodenum, as they appear through magnifiers, we must transcribe.

‘Anatomists have commonly considered this (the cellular substance within the muscular coat) as two coats, calling it the nervous and villous coat. But as far as I can judge, it seems to be nothing but the cellular membrane growing thicker and thicker, until on the inside of the stomach it becomes sufficiently firm and close to retain the substances contained in the cavity of the stomach; so that I should conceive that there is, properly speaking, no smooth or fibrous interior coat of the stomach at all. Observations made with microscopes are extremely subject to fallacy from deception of vision. On viewing the surface of the stomach with magnifiers of different kinds, and with different lights, and when the stomach is of different degrees of moisture or dryness, the appearances are extremely different. The manner in which I have been able to get it most distinct, was by placing a small portion of the interior part upon a small circular plate of ivory, with the surface outward and in view; this small plate of ivory was fixed in the centre of a circular plate of glass, which fitted the stage of a compound microscope, and a silver concave mirror was applied at the object end

of the microscope to reflect the light, as usual in viewing opake bodies. When the surface was moderately moist, there appeared a number of fine thin membranes, crossing one another so as to form a number of irregular cells; and the surfaces of each of these membranes were covered again by finer and smaller membranes again crossing one another, so as to form lesser and shallower cells, so as very much to increase the interior surface; and this appearance accords with what is seen by the naked eye, or a glass of little magnifying power; and very much resembles a piece of pumice-stone broken. In these cells a number of small white unequal globules were seen lying, but detached; nor could there be seen distinctly any glandular appearance.'

' The interior surface of this intestine (the duodenum) has very different appearances when viewed in a microscope according to the application of that instrument, in many views being subject to optical deception. Some part of it has been described by authors as a prodigious quantity of small tubercles; this appearance, however, arises from its being dry, or viewed with a side light. Near the pylorus, when viewed in the manner I have already described, it looks very similar to the stomach, only with small ridges which seem to run longitudinally. With an opake microscope, nothing like pores or glands can be seen in it. Lower down, the substance appears somewhat more polished, and transverse ridges become more considerable, till the appearance of what are called *valvulae coniventes*, gradually become more complete.'

Our author adds some remarks on the stomachs of fowls and other animals. He has observed, contrary to the opinion of Spalanzani, not only that chickens pick up stones, but that whatever be the proportion of stones mixed with the meat, they only pick up a certain quantity; and during the time of laying they invariably prefer some calcareous substance, particularly pieces of old mortar. If deprived of it, they generally sicken, and often die.

Dr. Fordyce proceeds to the consideration of fluids applied to the food during digestion, and engages in a disquisition partly chemical and partly physiological, in which we must follow him. The word *mucilage* he employs in a new sense, to distinguish a class of substances not hitherto accurately discriminated. Mucilages are capable of being combined with water; but their state of viscosity does not always depend on the proportion of fluid, for heat will coagulate them, without evaporating the water; and, when coagulated by heat, water will not restore the fluidity. Starch, and the white of an egg are instances of it, both in the vegetable and animal kingdom. Other substances will also produce the coagulation, which do not act, as in some chemical experiments, by abstracting wa-

ter; for a mucilage, coagulated by abstracting water, may be restored to its former state by fresh fluid, but when changed by a coagulant, though in appearance undistinguishable, it resists all the powers of that fluid. A simple instance of this is the curd formed by a rennet, which no boiling will ever bring back *permanently* to the state of milk, whatever proportion of water be added.

Of a mucilage of this kind all animal solids and fluids consist, and it is only necessary to consider what proportion of water, or what other substances, are added from those fluids by which digestion is performed. The saliva, our author observes, consists of this mucilage dissolved in water with some of the neutral salts, particularly the ammoniacal. It is miscible in water, and probably coagulable by the gastric juice. We may add, that the air seems to be in a loose state, and easily disengaged from it; but we cannot clearly say how far this influences the digestion, though it is highly probable that, in the first coagulation of food in the stomach, air is disengaged from it, or from the fluids applied to it, which is afterwards reabsorbed. The vapours which appeared in Dr. Macbride's experiments, our author attributes to the viscosity of the saliva preventing the air-bubbles from escaping. It is probable, in his opinion, that the neutral salts in the saliva are in too small quantity to have much effect in digestion. The gastric juice is a mucilaginous, tasteless, colourless, coagulating fluid, independent of any acidity, and adheres in the cells described, so as with difficulty to be washed out by water, or even a large flow of that fluid sometimes thrown out from the exhalents. The mucus is another fluid, more for defence probably than use, and for the description of its properties Dr. Fordyce refers to his Thesis published at Edinburgh. The other fluids, particularly the blackish matter thrown up in some complaints, seemingly of the stomach, are not natural to it, but the effect of disease, and therefore of little importance in this disquisition. We may perhaps be allowed to suggest that, since this black matter is neither bile nor blood, as we have often had occasion to prove by experiment, it may be worth while to enquire in such cases how far it may be an increased secretion from other organs, absorbed, and thrown on the stomach from its glands. In the human body there is a black fluid in the bronchial glands, and a fluid, not greatly unlike it, in the renal capsules. If the evacuation is connected with complaints in either organ, it may lead us to employ more appropriated remedies than we have hitherto used: in one instance, we observed it connected with a morbid affection of the lungs; but this we mention as a hint only in passing on.

The bile is the next assistant to the more perfect digestion

in the duodenum. Dr. Fordyce thinks that the use of the peculiar apparatus for its secretion is not known, since blood, drawn from the *vena portarum*, does not essentially differ from other venous blood; the usual difference, he *seems to hint*, is only owing to the less proportion of water in the venous blood. But that we are right in attributing this opinion to him we will not be positive; it adds, however, one instance to those which we mentioned, where he neglects the aerial changes; for one evident cause of difference is well known: blood sent to the liver from veins, instead of being made to pass through the lungs, cannot have thrown off its portion of phlogiston, or received its proper quantity of vital air, and the consequence is obvious: the bile is the most phlogistic fluid in the whole system. The bile, our author observes, is a mucilaginous fluid, but its mucilage is decomposed only, not coagulated by acids and their compounds. This criterion is a very remarkable one, and ought to be kept in view. Coagulation takes place exclusively in the stomach; the subsequent operations are very different; and the mucilage of the bile is in part added to the substances digested, while acids, which, from the imperfection of the digesting powers of the stomach, may escape from that organ, are evidently neutralised by this fluid. The resinous part, our author alledges, is probably thrown down and evacuated, while its purer oily part may add some useful portion to the chyle. The pancreatic juice resembles the saliva. Its mucilage is not a coagulating one.

The substances capable of being employed for nourishment next engage our author's attention. Vegetables are nourished by air and water only, and animals, feeding on such vegetables, are highly nutritious. Fish, though adapted for occasionally digesting animal food, may be long sustained by water and air alone; for gold-fish lived in distilled water, joined with atmospheric or pure air, grew and discharged much feculent matter when the vessel was carefully closed. Of vegetables thus formed, the mucilaginous part is only nutritious, as the oily and resinous portions seem not to contribute to any insect's food, except when mixed with the mucilage: in this state, poisons, the most deleterious to man, are devoured by some animals. Animal substances consist, in a great degree, of mucilage and water; but to these are added oils, essential and expressed, and rezins, all which are, or may be in certain instances, nutritious. Dr. Fordyce mentions the insect which lives on cantharides, and destroys the whole fly, but whose fluids are perfectly bland. Of the nutritious substances useful to man, the farinaceous seeds are the principal, particularly wheat and rice; for which in different countries similar seeds are substituted. These contain large proportions of mucilage, with some sugar, a fermentable

mentable mucilage, and a little astringent matter between the husk and the grain. Other kinds of nourishment are taken from the legumina, which contain more astringent matter, corrected sometimes by cultivation, and sometimes by the culinary art. In nuts the farinaceous matter is confined by the oil, so as not to be separable in the form of starch; but, in some fruits and in different roots, it is very copious and easily separated.

Farinaceous matter consists of mucilage combined with water, so as to become solid, and seems to be contained in very minute cells, in the form of a fine powder. It is soluble in water from 160° to 180° of Fahrenheit, and coagulated above the latter degree. It is coagulated for food by means of heat, of alcohol, *alum*, or other substances. Sugar, another vegetable substance, is a mucilage; but, in fruits, joined with that species of mucilage ready to fall into fermentation.Expressed oils are combined generally with mucilage, and we suspect contain this substance as a component part. Another nutritious substance is gum; and it is a mucilage of a peculiar kind, not fermentable, nor preventing fermentation. Another peculiar mucilage, whose properties are little known, is found in the unripe cucumber. The nutritive parts of animals are the mucilaginous, of which the bulk of the body consists: the animal mucilage may be procured by coagulation from the serum, and is pretty certainly the same with the gluten of the blood. Mucilage, whether procured from vegetables or animals, is the same, in Dr. Fordyce's opinion, and the function of digestion consists only in separating the component parts of the substances swallowed, and re-arranging them in a new form, separating, he should have added, what would be injurious to the system. But we must no farther anticipate our author's doctrine.

Whatever the species of animal, or however heterogeneous the food, the chyle is uniform, and seemingly the same.

' The chyle consists of three parts; a part which is fluid and contained in the lacteals, but coagulates on extravasation. Whether the vessels act upon it so as to prevent it from coagulating; that is, so as to keep it dissolved in water and fluid; or whether the fluid itself is alive, and coagulates by death in consequence of extravasation, is an argument which I shall not here enter into. The second part consists of a fluid which is coagulable by heat, and in all its properties that have been observed is consonant to the serum of the blood. The third part consists of globules, which render the whole white and opake. These globules have been supposed by many to be expressed oil; but this has not been proved. Neither has it been perfectly demonstrated that sugar is contained

in the chyle, although it has been made very probable. What renders these points difficult to determine is, the very small quantity of chyle that can be collected from any animal, not more than an ounce or two at the very most, from one even of the largest animals. However, the part coagulating on extravasation, the part agreeing with serum in its qualities; the globular part, which in some animals, but not in quadrupeds, exists without giving whiteness to the chyle alone, or along with sugar, form the essential parts of the chyle.'— Some substances may enter the blood with the chyle; but the lacteals seem to have a discriminating power, and reject what will probably be injurious to the system.

In explaining the process of digestion, Dr. Fordyce takes some pains to show, that division only cannot change the nature of the substance, however minute the division may be, as well as that in all probability no two particles of matter are in contact. This last opinion he seems to claim as his own; but we adopted it long before we ever saw Dr. Fordyce, from father Boscovich. He is willing to separate it from the idea of matter consisting only of attracting and repelling points, because 'a point is nothing, and of which therefore nothing can be predicated, or nothing can have no qualities.' It would not be difficult to shew that this is not solid logic, that we predicate constantly of secondary qualities which have no existence but to the eye or the mind; and that whatever produces an impression on the senses has, so far as we are concerned, a real existence. We mean not to dispute the principal position: we are convinced that, admitting the existence of particles of matter, they are, in the densest bodies, far from being in contact; but we are equally convinced that it is impossible, in these circumstances, to render the doctrine of attracting and repelling points absurd or improbable.

Dr. Fordyce next shows, very satisfactorily, that mere solution will not of itself produce chyle, even admitting a chemical change in the food in consequence of solution, for the chyle is in every instance similar, and the menstruum must be necessarily similar in bodies of the same species; but, from the most dissimilar foods, chyle, undistinguishable by the most accurate tests, is usually procured. The system of a vinous, acetous, and putrefactive fermentation, or of a fermentation of either kind, has long since been exploded. There is then but one resource: the component parts of muscular organs, and of chyle appear to be the same; and the component parts of *putrid* farinacea and chyle are also similar. If then we admit that digestion consists in breaking down the mass, and recombining its component parts, it will remain to enquire, whether the powers of the human stomach are capable of producing this change.

The first object of our author is to examine the effects of the living power of the stomach on its contents. These are coagulation and an antiputrescent power. By the first it seems to fix the substance in the stomach till the requisite changes shall be produced, and by the second to prevent the bad consequences that would result from the delay of putrescent matter in a heat so great as that of the stomach. In this situation the solvent power of the gastric juice has probably some effect; for we see, after the coagulation of milk or of mucilage, that the consistency and cohesion of the coagulum diminishes. In this state the new attractions and repulsions take place, for what other cause is there for a change in this respect? Why do not the parts combine again, when the cause of separation is removed into the same body? Indeed by not admitting of this solvent power, Dr. Fordyce is almost compelled to allow some degree of fermentation in the stomachs of herbaceous animals.

The foundation of our author's system, and the great step which he has made is, in showing the necessity of this coagulation, and the connection between this part of the process and due nutrition. We have seen and often insisted on it in milk; but, by investigating the properties of the animal mucilage, our author has rendered the system at once comprehensive, accurate, and beautiful. We trust we have not injured this fair fabric, by adding the solvent powers of the fluids of the stomach, which we think sufficiently proved from Spalanzani's Experiments,

The next step is the progress of the food into the duodenum; and Dr. Fordyce, with his usual accuracy, shows that this is a subservient and a secondary process. If the digestion in the stomach has not succeeded properly, that of the duodenum will not supply it. Bile, it is said, is not absolutely necessary to the formation of chyle, and our author has not clearly shown what its use is. The chyle is formed in the duodenum, and we have remarked that the bile and pancreatic juices do not contain coagulating mucilages. Whether they supply the oily matter, or animalize the chyle in a certain degree, we know not. The vast apparatus for the secretion of bile seems to show that it has a more important office; but the loss of strength, and the apparent acrimony in the fluids of persons labouring under jaundice, may as well be attributed to the return of the bile as to imperfect animalization. On this point our author leaves us in the dark.

If we may be allowed in this instance also to add a hint, we should observe that, as the food comes from the stomach, it appears still a heterogeneous mass. Chyle is not formed, or it is encumbered with different extraneous substances. May
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not the bile and pancreatic juice therefore, applied in succession, be useful in separating this extraneous matter or precipitating what may be noxious in the new compound?

Dr. Fordyce gives us reason to expect that he will pursue this subject dietetically, and enquire how far different foods are adapted to the organs of digestion. We could wish he would also pursue it pathologically. He affords a very good foundation for explaining the phænomena of vomiting, symptoms of indigestion, and the very various kinds of diarrœa. But we can only follow authors; we must not expatiate beyond the bounds which they prescribe, or presume to add much to their speculations.

*Collectanea de Rebus Hibernicis. (Continued from Vol. LXX.
p. 549.)*

THE twelfth Number of this Collection is extremely curious. The preface, extended to near 170 pages, contains many remarkable coincidences of the Irish and Oriental languages, and the 'scattered limbs' of a system too much divided, and thrown together with great carelessness. It is, however, vast and splendid in its design, and singularly curious in the execution. But, besides that it consists of too many detached facts to admit of a regular analysis, truth and error are too intimately united, to allow us to examine it at length within the compass of articles like those of our Journal. We must content ourselves therefore with colonel Vallancey's outline.

The Pelasgi were, he observes, Scythians, for 'Scuthæ was the Greek name of the Pelasgi.' These people, or at least one branch of them, the Magogian Scythians, settled in Assyria, soon united with the Phœnicians in different attempts, and probably in forming distant colonies. The colonies seem, from this account, to have been numerous, and to have extended from this part of Asia in every direction. Among the rest they are supposed to have been sent to Etruria and Ireland, conveying the Phœnician language and manners, which, when compared in the different dialects, greatly illustrate each other. The etymological part of this examination forms the great bulk of the preface, which displays coincidences so singular and striking as to have afforded us the greatest entertainment. We draw, however, a very different conclusion from our author, and think that he has only proved that the Celtic language was, at least, very near the original language, varied perhaps in its different dialects at the dispersion of mankind, on the building of Babel, and carried to different parts of the world, many centuries before the Phœnicians passed the Pillars of Hercules. If we admit our author's system, Assyria must

must have been this centrical spot, and we may, in that case, allow that Ireland was peopled from it, because, after the flood, the western world at least received its inhabitants from thence. That the inhabitants of Ireland were the immediate progeny of these first people, is gratuitously assumed; since, as we have said, the language is very generally diffused, and no written records can possibly remain. If Cadmus was really a Canaanite or Phœnician, and taught literary writing to the Greeks: if also, he was one of the Canaanites expelled by Joshua, it cannot prove that the Irish were a Phœnician colony, since there is not the smallest evidence that the Irish were acquainted with the art of writing till after the time of Patrick. Many of our author's reveries are very unworthy of being mixed with judicious discussion; that the Irish had Druids; that Homer's Poems were translated from the original language, which was the parent of, and almost the same as, the Irish; the hint that the oracle of Dodona was in Ireland, &c. add not to the credit of the author or the value of his work. The Druidism of Ireland, and its Phœnician origin, are in every respect inconsistent, as our author himself in effect acknowledges; and, except in the general etymological outline, which contains only proofs of the vast extent of one primordial language, we cannot agree with our author, or admit the validity of his arguments. Even that the Pelasgi were Phœnicians, is not very probable; that the Pelasgi were those Phœnicians who migrated to Ireland, is not supported by any satisfactory evidence: etymology, of all other proofs, is the most delusive.

The subjects of this Number are, Allhallow-Eve, the Gule of August, or Lammas-Day, Description of the Banqueting-Hall, of Tamar, or Tara, and the Kiss of Salutation, an Eastern Tale. The discussions are chiefly etymological, connecting the Irish names with the eastern languages, with some account of the different superstitions connected with these seasons. The Irish, our author contends, differs from the Welsh, though he admits each to be a dialect of the Celtic, the one corrupted, the other *preserving its purity in consequence of later oriental connections.*

The conclusion is professedly miscellaneous. As Bethsean was founded by the Scythians, and said by Joshua to be in the possession of the Canaanites, or Phœnicians, from whence the children of Manassah could not drive them out: in short, as these reputed ancestors of the Irish excelled in the manufacture of linen, in which they are followed by the *present* Hibernians, our author examines the various technical terms in each dialect, and finds in them a very great resemblance; but the most curious part of this 'conclusion' is what relates

to the arithmetic numerals. Col. Vallancey thinks that they were brought to England from Arabia, through Spain, and that Ireland learned them from Spain, as it did not adopt the changes made by the English. Of the other etymological researches in this *miscellaneous Collection*, that which relates to the Irish cries (*vulgo howls*), and the funeral ceremonies, is most interesting; and what relates to the mariner's compass, supposed to be known even in the days of Homer, is most whimsical and visionary. The analogy of the ancient Etruscan and Irish is also a little fanciful, but contains some observations of curiosity.

The third volume concludes with a second letter from Mr. O'Connor, on the Heathen State and Ancient Topography of Ireland; and, if we take a little from the reputed antiquity, and some opinions respecting the Irish Druids, it will be found to contain observations of importance. A description of the ancient city of Ardglass, a strong fortress prior to the fourteenth century, perhaps the work of some of the early English invaders of Ireland, is added.

The first Number of the fourth volume is introduced, as usual, by an extensive preface, in which many parts of the former argument, with additional etymological proofs, are inserted. The Thracian origin, and the Thracian Cabiri, the prototypes of the Irish Cabiri, who are supposed to be the same with the Irish Druids, are the most curious subjects examined in this preface. The original colonies, it is observed, introduced the fire-worship; and Cormac's Chapel, adjoining to the tower of Cashel, is supposed to be one of these remaining buildings. Cormac reigned in the beginning of the tenth century; and O'Brien says there is sufficient evidence that Cormac only repaired the chapel: the tradition at Cashel is, that it was a heathen temple. Such are the usual arguments of the *Collectanea*: O'Brien's evidence we know not, and, if we did admit the fact and the tradition, how is this connected with the fire-worship of Zoroaster?

The first part of the memoir relates to the Jodhan Moiran, the breast-plate of judgment. The gold breast-plate, found in the bog, seems to have obtained this appellation from fancy: the story is evidently a fiction; and, if colonel Vallancey pleases, an eastern one. If the judge gave a erroneous decision, it would close round the neck, like the ring mentioned in the Arabian Nights Entertainments. The supposition, however, leads to a discussion respecting the Urim and Thummim, which we think, with professor Dathe, and our author, were the precious stones; but to these some peculiar virtues were undoubtedly ascribed. Aaron's dress would not have been so particularly pointed out, if some attributes were not connected

connected with the different parts. Dr. Geddes supposes these words were applied to the emblematic figures representing knowledge and integrity. If these were consulted, it was like the demon of Socrates, by silent suggestion. The Liath Meisicith, another magical instrument, is also described. A plate of some images, which our author supposes to be Etruscan, an account of the Charter Horn, of the Harp of Brien Boirromh, who died about the beginning of the eleventh century, and many different remains of antiquity, are subjoined. As usual, much truth and error are mixed, and it is curious to see the common broches of the middle ages, and the common Chinese coin, dropped perhaps within a few years, considered as eastern amulets and talismans, or as containing useful information. The Chinese letters are said to be the old Syriac.

Another Letter from Mr. O'Connor, on some Parts of the Ancient Irish History follows, with some Queries relating to a complete History of Ireland, and Dr. Macbride's Account of the Revival of Snails, published in the Philosophical Transactions.

The last Number is a recapitulation of the whole argument respecting the Antiquity of the Irish, their Eastern Origin, with a Defence of the Representations of the Bards. From this Number we shall more particularly notice some of the more important observations; and, since we knew of this repetition, we have stepped more hastily over some of the former Numbers than we should otherwise have done. It is the work of colonel Vallancey.

The introduction contains the general system of eastern migration, of which we shall select the substance.

' In the following pages, it will appear, that the body of Magogian Scythians, of whom we treat, were a polished people before they left Asia; the first astronomers, navigators, and traders, after the flood, and courted by the Arabs, the Canaanites, the Jews, and Egyptians, to settle among them. That, from their first settlement in Armenia, they soon passed down the Euphrates to the Persian Gulph, round the Indian Ocean, to the Red Sea, up the coast of the Mediterranean almost to Tyre. The Greeks knew them by the names of the Phœnicians of the Red Sea, by Iethyophagi and Troglodytæ: in Scripture they are called *Am Siim* or Ship people, and *Naphuth Dori* or Maritime folks.

' These soon mixed with the Dadanites and Canaanites, allied with them, and were absorbed under the general name of Phœnicians; yet still among themselves were distinguished as the sons of Japhet *Gadul*. These assertions the author of this Vindication thinks can be well supported by sacred and profane history, and with great deference submits them to the learned reader.'

In other respects, col. Vallancey does not materially differ from the system of Mr. Pinkerton; we mean so far as relates to the Goths and Scythians, and he seems to acknowledge some prior inhabitants, which we are probably at liberty to call Celts. The great difference between our author's system, and that which, in our review of Mr. Pinkerton's work, we found reason to consider as the true one, is this. Our author supposes these colonies to have been in a highly polished state, possessing the arts and sciences in perfection, which they at once carried to this distant island, and they immediately flourished in the new soil with vigour and luxuriance. Independent of the deficiency of every proof, and of reasons to show why they undertook this extensive voyage, when more genial climates were within their reach, or why they migrated at all, their refinement and civilization, are by no means shown. From this spot colonies undoubtedly spread, first into the nearer countries; and next, when they were overstocked, into more remote ones, till at last they reached the western Thule, which was at this remote period much larger, for the sea has greatly gained on it. In their progressive journey they found aboriginal inhabitants, the descendants of those preserved by the ark, or those whom the deluge may not have reached. These were incorporated with the new conquerors, preserving, from some accidental superiority, their language, particularly in names of mountains, rivers, and things of more general use, or were pressed on by them to more distant climates. This view accounts for the coincidences of languages, explains every authentic narrative, except the reputed Irish MSS. whose authenticity their best historians begin to dispute. Our author proves no more than what we have just observed, adding some other very doubtful and suspicious etymologies. Of these we shall now add a specimen.

‘ But the true derivation of the name *Sacæ* and *Scuthi*, i. e. shipmen, navigators, or swimmers, I think, is from the Oriental שָׁחוֹת **שחוות** *Sachu*, or *Sachuth*, *Natatio*, from שָׁחָה **שחה** *Sachah*, or **שָׁחָה** *Sachah* *nativit*; Syriac **שָׁחָה** *Sacha* *nativit*, remigavit aquis: it also signifies profunditas; and shields being made of wattles covered with hides, we have **שָׁחָה** *Shacha*, **שָׁחָתָא** *Shachata* *Shacha*, *Gabata*, *Scutella*, whence the Irish *Sciata*, *Sciutha*, a shield, a twig basket, or any thing concave like the ancient target. The word is used, in the Oriental tongues, to signify whatever acts in, or upon, water; its signifies also to wash, **שָׁחָה** *Sacha*, lavit, ablutus fuit, quia natator non natat, nisi lavet (Schindler.) **מִשְׁחָה** *Mi Sachua*, navigable rivers, deep waters, which cannot be passed without a boat, or by swimming.—Quas sub pede transire non poterat, sed natando trajiciebant. **מִשְׁחָתָה** *Miscutha*, balneum,

and hence the Scythian or Irish *Scuth*, *Scudb*, a ship, the *Ægyptian σκυθια skeitia*, rates, naves planæ (Kircher) and the Turkish *Saica*, *Navigii genus, vulgò Saique*, (Du Cange). *Scytha Scan-dicè, Skeid*, Lang baat ella *Scuta*, *Navis longa*. Ibid. *Skaid, Skana, Skuta, rodarferior* (Verelius. Lex.) In monumentis Anglo Saxonis *Navigii genus nominatur Scentb*, appellatum, sed quod hoc pertinere, non autumvero (Ihre). *Sceith a σκυτος, Corium ut navigia corio inducta* (Junius).

‘ In like manner, the works signifying a hide, do also signify a boat, as *σκυθαι*, *Coriarii*; *συλωσολις*, *Coriarii Urbs, Scythopolis*. In Irish, *Bolgh*, *Bolo*, a hide from **בָּלָגְה** bolgh tegere, whence **בָּלוֹן** *Bolun*, a hide; and this word gave name to the *Belgi* or *Scythians*, on the Caspian Sea, and to the river *Bolga* or *Volga*, because inhabited by these *Scythians*, who passed westward; whence *Phlugh* in the Armenian, *Fluk* Arabicè, *Vlog* Slavonicè, and *Filuka* in Italian, a ship. Gr. B. *βαλλην*, *Navis, Scapha*.’

Our readers will perhaps think with us, that in this way any conclusion can be drawn from any premises. The old Irish was, in our author’s opinion, the Ogham, of which we have already spoken, and the great support of the whole is the Psalter of Cashel, whose authenticity and contents have been so well examined by Bishop Stillingfleet, in his ‘*Origines Britannicæ*,’ p. 266, &c. that we need not add any thing to his observations. In short, we must repeat, that we have found no evidence of any manuscripts previous to the time of St. Patrick, or any proof that the information, prior to that time, was conveyed in any other way than by tradition.

The Genealogical Tables of the Irish Colonists, and the Topographical Names of Ireland, are the first objects of our author’s attention. They are full of the fancies of a Phœnician race, carrying the antiquity of the Irish monarchs up to Noah. Then come the varicus expeditions, from Partholan to Milesius, extracted from Keating, with remarks sometimes extended to a great length, and generally containing many curious and ingenious observations, by col. Vallancey. If we had found a single argument which, on a fair examination, would have supported the antiquity of the Irish, we would have given it with its fullest force. The proofs from Spanish authors only show, that the historians of that country speak of a report, or sometimes assert more positively, that Ireland, at least in part, was peopled from Spain. In fact, we have formerly allowed that colonies from Spain contributed to the population of Ireland; but, in general, it was peopled with its present race, from the west of Britain and from ancient Scandinavia. One enterprising author of Spain is willing to make

his country the source of population to every kingdom in the neighbourhood, viz. Britain, Gaul, Rome, &c. &c.; but his fancies we suspect will not become very fashionable. The chapter, which relates to Britain and Ireland, is transcribed; he there, however, seems only to claim the Silures and Brigantes as of Spanish origin. Some passages of the conclusion we may select.

‘ We have taken upon us to say, that our Magogian Scythians were the original Phœnicians—it will be asked, where are the remains of the fine arts of the Phœnicians to be met with in this country—where are the temples, the colonades, &c.?—to this I answer, that the Greeks confounded the Phœnicians with the Canaanites; and that our Scythians were the carriers of their merchandize, their navigators; were acknowledged as subjects, but never admitted a share in the government, or to the rank of noblesse. They had the use of letters, a knowledge of astronomy, of marine astronomy in particular, and of navigation; but had no knowledge of the fine arts, their religion forbid it. If the King of Great Britain was to send his whole navy to North America, with orders never to return, would the settlements formed by our admirals or captains, or by their crews, ever produce an elegant piece of architecture; yet every private man on board had seen St. Paul’s, and Whitehall: could they form a column, or mould a cornice?

‘ The Phœnicians sent a numerous colony to Gaul:—Where are the Tyrian or Sidonian monuments of grandeur to be found in that country? yet the Gauls learned the terms of state, and of the military art from the Phœnicians, and adopted them. Hence Bochart has been misled, to think that the language of the Gauls had a great affinity with the Tyrian, (i. e. Canaanitish) but all those words, produced by Bochart, are as much Irish as Canaanitish; yet no language differed more in syntax than the Phœnician Irish or Berla-Pheni and the Canaanitish. The dictionaries of the old Irish are almost the Dictionaries of the Chaldee Arabic and old Persic, but the grammar differs very widely.

‘ When the Scythians divided from the Persians, and settled in Touran, they did not cultivate architecture and build magnificent temples as the Persians did; yet those Touranian Scythians were a lettered people, as early as their brethren of Persia. The Scythians retained as long as possible, the Patriarchial mode of worshipping the deity in open air, and of sacrificing to him on altars of stone, where the chissel had made no impression, surrounded by pillars of unwrought stones. The Persians adopted the worship of fire in towers, and with sword in hand obliged our Scythians their ancient brethren to accept this mode of worship. We accordingly find

find the fire tower in Ireland, and under the Persian name of *Aphrin*. We find the names of the Persian priests of the Ghebres, still existing in the Irish language; we find the Persian history, (fabulous or real) to be the history of the ancient Irish: can there be more required?

The invasion of the Danes would have furnished a much better argument, for the destruction of the remains of art; but it rarely happens that the unpolished conquerors are not subdued by the arts of their more refined captives; and it is still less unlikely that those who were once acquainted with the arts of *luxury* should, in a more ungenial climate, neglect those of *defence*. In short, as our associate, in his review of Miss Brooke's Reliques of the Irish Songs, p. 26, of our last volume has so ably urged, 'If such old scholars, why so unlearned still?' As the Irish annalists were obliged to kill all the followers of Milesius, because none of the principal families were to be found in their descendants, so our author deprives his colonists of all taste and elegance, because neither is displayed in their works.

The last chapter of the Collectanea is on Paganism in general; on the general Plan of Idolatry, formed before the Dispersion; and on the Pagan Religion of the Ancient Irish. Col. Vallancey supposes, that Paganism had assumed some form before the dispersion of the different tribes; but this most ancient Paganism was only the worship of the most striking objects.

' The original religion of the Irish, (who were Scythians and Persians) was *Sabism*, which began in *Chaldea* and spread into Scythia, Media, and Persia. Sabism was of two kinds, with images and without. The public religion of Sabism was the worship of *Fire*. The Chaldees were priests of Babylon, they were anciently called *Ce-pheni* and *Chalybes*. *Ce-pheni* signifies the *illustrious revolvers*, from פָּנָן pen, vertere, revolvere, whence *Pan* was *Sol*, i. e. the revolver. *Chalybes* is from קָלָא *Kala*, comburere, whence *Caldee* a worshipper of fire. Hence the Pagan Irish explain *Phan* or *Fen*, by *Talach* and *Molock*, epithets signifying the sun and fire: and the sacrifices were named *Talachda* or *Tlača* from קָלְיָקָא *dalika*, conflagratio, dlakta דָּקְלָתָה the same, whence the altar near Dublin is named *Dalki* and from that altar, the village and island of *Dalky* take their names.

' Sabism with images was brought into Ireland by the Tuatha Dadanim. Sabism without images or *Magism*, by the Milesians who were originally Persians and Phænicians.—Magism was at length reformed by *Airgiodlamb*, or *Zardust* who was *Zoroaster*; and

and this was brought to Ireland by the latter colonies. Zardust was a servant of one of the prophets, and had a knowledge of the writings of Moses; he predicted the coming of the Messiah by the name of *Nion*, which was well known to the pagan Irish, as we have shewn'.

The name *Druid* comes, in col. Vallancey's opinion, from the Irish *Drui* (Daru, sapiens, of the Persians), and not from the British *Derwydd*, an oak. The probability, however, is, that the name of an appropriated religion would not be derived from an abstract term, but from a sensible object, from the circumstance most closely connected with it. The oak, our author contends, was a sacred tree in the east; but this rather confirms the British derivation, if an unlucky question did not occur, why *Druidism* was almost peculiar to Britain? Col. Vallancey proceeds to explain the words *Bardi*, or *Barthes*, and *Saronidæ*, terms synonymous, or nearly so; and *Vates*, prophets. The legendary tale, which accompanies this account, though in its events resembling the account given of Abraham, Sarah, and Isaac, is not so closely connected with it as to convince us that the source was the same. The peculiar paganism of the Irish affords no particular arguments to assist us in the solution of the great question of Irish antiquity.

In our review of these volumes, as they contained a part of the subject which posterior publications called on us to examine, we have chiefly attended to what is connected with these publications. We have met with no work where curious unexpected remarks, and incidental interesting information are more conspicuous; but the arguments in support of the principal question are weak and unsatisfactory. We have passed over the etymological arguments, it may seem, too contemptuously: it was, however, because this mode of argument has been much abused, and the words with their different meanings are in the present Collection vaguely and improperly employed. Our author must know, that the common interpretation of these words is frequently very different, and that, even in his own sense, they do not support his cause. In the instance quoted, the great naval power and the nautical abilities of the Phœnicians are but ill supported by the terms which imply that their ships were made of wicker-work covered with skins. The roots of *currough* and *coriarii* must at the same time convince our readers that the ships were ill adapted for distant navigations.

Transactions of the Society instituted at London for the Encouragement of Arts, Manufactures, and Commerce; with the Premiums offered in the Year 1790. Vol. VIII. 8vo. 4s. Boards. Dodsley. 1790.

WE are well pleased to see this respectable Society increasing in riches and fame, while their attention continues to be directed to useful or curious subjects. The Society still proceeds to encourage the growth of trees: every true patriot, every lover of picturesque beauty, will thank them; but the claims this year are less numerous than in preceding volumes. There seem, however, to be some respectable thriving plantations, for which the different premiums have been adjudged.

The disease of the potatoe, styled the curl, as we formerly predicted, appears to be owing to the weakness of the plant, either from the seed being exhausted in the soil, or not containing a sufficient quantity of nutriment for the young plant. Forcing potatoes by cultivation is another cause of debility occasioning the curl. The disease is said to have been first observed in 1764, at the place where the first potatoes were planted, in Lancashire; for the ship which brought them from America was wrecked on that coast. It is probable that the farmers of this country did not carefully change their seed; but so many new sorts are now produced, that the change of sort, or any considerable change of soil and situation, is sufficient. Before these varieties were known, we have seen one district lose its credit for raising good potatoes, and another gain it. The first has rose again in reputation, while its rival has declined; but at present, by a little care, good potatoes are found in almost every place, though in general they prefer the light stony ground. In a more luxuriant soil they degenerate or become curled. A shoot from a curled plant seems to thrive well, and not to be affected by the disease. A premium was given for the cultivation of potatoes for the purposes of feeding cattle; and it appears that heifers and calves were readily fattened on them with little other food. From one fact mentioned, it seems probable, that sheep would feed on them also. Mr. Noyes received a premium for stall-feeding horses with green food. He employed tares.

In the department of agriculture also, we have farther accounts of the cultivation of rhubarb, but no additional information respecting the management. Our eager English cultivators continue to take it up too early, and the value of the remedy will be lessened if they do not check this impatience. It should be from eight to twelve years old.

Mr. Quayle, we find, gained 110 acres, 19 perches of land, from the sea, in Dengey Hundred, in the county of Essex.

‘ In that neighbourhood there exists a general tradition, that at

Some distant period of time, a considerable tract of country was overwhelmed by an irruption of the sea. The name of a Saxon city, Ithancestre, is preserved, which is said to have then perished. But the memorials of this calamitous event are not so well preserved, as those of the inundation on the western side of the Thames, although it could not have been long prior in point of time, or perhaps much less extensive in its deviation. Bricks are said to be sometimes raised by the fishermen dragging off this coast; and some have fancied they could discern stumps of trees in a sand-bank called the Buxey, situate at two leagues distance from the present shore.

'No apprehensions of a similar calamity are now entertained on the coast of Dengey Hundred; bounded on the east by the Blackwater or Malden River, on the west by the Burnham river, and extending about fifteen miles, the sea has been for some centuries slowly and irregularly, but gradually retiring.'

The expence was about 850l. and the method employed, which appears to be judicious, is described at length. The silver medal was given to Mr. Lee, for gaining 42 acres of land at Goldhanger, in Essex, at the mouth of the river Blackwater: the expence was somewhat above 225l.

Mr. Lane and Mr. Manley, both of Devonshire, received a reward for the numerous stocks of bees, but not having complied with the original proposals, could not receive the full premium. We see nothing very peculiar in their management.

In chemistry, we find only the method of making yeast. A pretty strong decoction of malt, in a small quantity, will easily run into a fermentation; and if a second or a third portion, in a proper heat for this process, be added, the fermentation will proceed. It should be of the strength of ale, and in quantity about a quart. Hops added, hasten the fermentation, but give a disagreeable flavour to bread if yeast is wanted for that purpose. The malt decoction, if well secured in strong jugs, while in the beginning of its fermentation, would form reservoirs of yeast, from which, at any time, this ferment might be quickly and perfectly prepared. This we hinted at some time ago.

The quantity of silk for which a premium was offered, was produced, and it appeared to be in a very good state. Several cocoons were likewise brought, larger and heavier than any yet seen. The claimant, Mr. Salvatore Bertezen, thinks this kingdom more advantageously situated for producing silk than even Italy; for the great heats of that climate are more injurious to the worms than the moisture and cold of England. The advantages in employing women and children would undoubtedly be great; but the arguments against this attempt formerly alledged, still continue in the same force.

A description of M. Sholl's new-invented loom follows,

which is more simple and portable than the usual loom, affords the workmen more light, and admits the porry to be of any length. The gibbet is formed in the loom, and the bridge of the battons is not nailed to the block, but fixed by iron pins in the block, which go partly through the bridge, and are fastened with glue, so that the silk cannot be injured.

A new Nonius or Vernier is described by Mr. Adams, in which the divisions of a quadrant, &c. twenty inches radius, may be read off to a second or less. We know not well how to give an idea of it in fewer words than our author's own; but our astronomical readers may understand us, if we say, that as a Nonius is subdivided into aliquot parts of a degree, minus one, if these aliquot parts are still more numerous, and the deficient subdivision be of course less, the instrument will be more accurate, and in a quadrant of twenty inches radius, will be exact to less than a second.

Mr. Mocock's Jack, contrived to prevent accidents if the weight overcomes the power, differs little from the common instrument, except in having a click and ratchet to stop the motion in such emergencies. The gun-harpoon in the following accounts seem to have been successful.

Col. Dansey's instrument for draining ponds without disturbing the mud, is very convenient where it can be employed; but unless the pond is constructed for the purpose, it will be difficult to cut the horizontal adit. We would beg leave to suggest to the ingenious author, whether it would not be more convenient to turn the windlass by wheel-work, with a click to support the oblique pipe, at any given elevation? The float at present renders it not very easy to change the elevation.

Mr. Quin has improved his hygrometer; but the description is not easily understood without referring to the account in the second volume of these Transactions. On his own principle, he might make it more perfect if he attended to what has been done lately in this way on the Continent, recorded in the Foreign Intelligence of our last volume.

In the department of colonies and trade, we have a promising account of the growth of the cinnamon-tree in Jamaica. A part of the description we shall transcribe:

‘ The cinnamon-plant, though (according to the account of travellers) it grows to the height of twenty or thirty feet, is, properly speaking, an arborescent one, and not a tree of the common kind: it puts out numerous side-branches, with a dense foliage from the very bottom of the trunk; which furnishes an opportunity of obtaining a plenty of layers, and facilitates the propagation of the tree, as it does not perfect its seeds in any quantity under six or seven years; when it becomes so plentifully loaded, that a single tree is sufficient almost for a colony.

‘ The

‘ The cinnamon seems to delight in a loose moist soil, and to require a southern aspect; the trees thus planted, flourishing better than others growing in loam, and not so well exposed to the sun.

‘ When healthy, it is (from layers) of a pretty quick growth, reaching in eight years the height of fifteen or twenty feet, is very spreading, and furnished with numerous branches, of a fit size for decortication. The seeds, however, are a long time in coming up, and the plants make small progress for the first year or two *.

The most aromatic branches are those of about an inch diameter, and the cinnamon is the liber, or inner bark. The leaves are highly impregnated with the same flavour.

The rewards, the models, and the usual lists follow. Of the proposed premiums, those in agriculture are numerous and important. Among the other objects, we perceive the gold medal offered for the Natural History of any County in England; which we hope to see claimed, though without any sanguine expectations. The reward for the Cashew gum is renewed, as it is found to answer the purposes of gum Senegal in silk-dying, &c. and for facilitating this purpose, we understand the duty on its importation has been greatly diminished. The premium for sena, the growth of the British Islands in the West Indies, will hardly be claimed; and we should suspect, it might be better to limit it to any of his majesty's possessions in the East Indies. As we have found some trouble in comparing the different volumes, we would suggest to the Society, whether it might not be better to print the new offers, or any variation of the former proposals, in italics?

Voyages made in the Years 1788 and 1789, from China to the North West Coast of America. By John Meares, Esq. (Concluded from p. 10.)

THE inhabitants of the western coasts of America and of the Sandwich islands will probably become objects of importance in the future history of the commerce of this country; though at present we have only those hasty rapid glances which casual adventurers can catch, yet it is of importance to fix the ideas which they suggest, as it will be useful to correct them by future experience. Judgment is in no way so much improved as by observing errors, and particularly noticing the source from whence they proceed: we shall, therefore, pursue our copy of Mr. Meares' outline, regardless whether a future

* The birds appear to be very fond of the berries, and will probably propagate this tree in the same way they do many others every where over the island; so that in a short time it will grow spontaneously, or without cultivation.

enquirer may smile at our presumption or commend our discernment. But it will be necessary to follow the series of our navigator's adventures.

On his arrival at Nootka island, the chiefs were absent; but they soon returned from their short campaign, singing in their usual style, though it might have gratified musical amateurs, if any scientific musician had been in the party, to have known in what scale they sang, since the diatonic is contended to be the only natural one. The chiefs, however, were friendly, and a factory was built, defended in a temporary way from sudden ill-regulated incursions. The keel of a ship was also laid, the first ever built on this coast, styled the North West America. In this attempt, and in trade, they were for a time employed, experiencing some duplicity, and the inconveniences which the thievish disposition of the natives occasioned. They soon had reason to suspect that the natives of this coast devoured occasionally human flesh; a suspicion afterwards realised, for this custom was found not only at Nootka, but in the neighbourhood, not the effects of famine, but considered as a luxurious banquet. From farther enquiries, the Sandwich islanders appear to be unacquainted with this detestable practice. It seems to have originated with the New Zealanders, partly from necessity; to have pervaded the tropical islands of the pacific, till farther advanced in refinement and civilization they preserved only the form, the traces of a former custom; and from thence to have extended eastward to the continent. If the Sandwich islanders ever deserved the imputation, they seem to merit it no longer; but even in the old continent, if some authors are to be trusted, particularly Abdollatiff, in his *History of Egypt*, this Thyestean banquet has been employed in moments of emergency, and under the impulse of famine. The mild and humane Gentoo, only, lies down on the banks of the sacred river, and dies without a similar impulse.

In the progress southward, to Port Cox, and the entrance of the famous straits of John de Fuca, they meet with other unequivocal marks of the same depravity. The most opulent chief of that coast is Wicananish, and of his magnificent and royal feast we may transcribe a description.

‘ On entering the house, we were absolutely astonished at the vast area it enclosed. It contained a large square, boarded up close on all sides to the height of twenty feet, with planks of an uncommon breadth and length. Three enormous trees, rudely carved and painted, formed the rafters, which were supported at the ends and in the middle by gigantic images, carved out of huge blocks of timber. The same kind of broad planks covered the whole to keep out the rain; but they were so placed as to be removed at pleasure,

sure, either to receive the air and light, or let out the smoke. In the middle of this spacious room were several fires, and beside them large wooden vessels filled with fish-soup. Large slices of whale's flesh lay in a state of preparation to be put in similar machines filled with water, into which the women, with a kind of tongs, conveyed hot stones from very fierce fires, in order to make it boil:—heaps of fish were strewed about, and in this central part of the place, which might very properly be called the kitchen, stood large seal-skins filled with oil, from whence the guests were served with that delicious beverage.

‘ The trees that supported the roof were of a size which would render the mast of a first-rate man of war diminutive, on a comparison with them; indeed our curiosity as well as our astonishment was on its utmost stretch, when we considered the strength that must be necessary to raise these enormous beams to their present elevation; and how such strength could be found by a people wholly unacquainted with mechanic powers. The door by which we entered this extraordinary fabric, was the mouth of one of these huge images, which, large as it may be supposed, was not disproportioned to the other features of this monstrous visage. We ascended by a few steps on the outside, and after passing this extraordinary kind of portal, descended down the chin into the house, where we found new matter for astonishment in the number of men, women, and children, who composed the family of the chief; which consisted of at least eight hundred persons. These were divided into groupes according to their respective offices, which had their distinct places assigned them. The whole of the building was surrounded by a bench, about two feet from the ground, on which the various inhabitants sat, eat, and slept. The chief appeared at the upper end of the room, surrounded by natives of rank, on a small raised platform, round which were placed several large chests, over which hung bladders of oil, large slices of whale's flesh, and proportionable goblets of blubber. Festoons of human sculls, arranged with some attention to uniformity, were disposed in almost every part where they could be placed, and were considered as a very splendid decoration of the royal apartment.

‘ When we appeared, the guests had made a very considerable advance in their banquet. Before each person was placed a large slice of boiled whale, which, with small wooden dishes, filled with oil and fish soup, and a large muscle-shell, by way of spoon, composed the economy of the table. The servants were busily employed in preparing to replenish the several dishes as they were emptied, and the women in picking and opening the bark of a tree which served the purpose of towels. If the luxury of this entertainment is to be determined by the voraciousness with which it was eaten, and the quantity that was swallowed, we must consider

it as the most luxurious feast we had ever beheld. Even the children, and some of them were not more than three years old, possessed the same rapacious appetite for oil and blubber as their fathers. The women, however, are forbidden from eating at these ceremonials.'—These people seem to employ paint only on the days of ceremony.

The harbour in which they now were, (Port Cox) is a very commodious one. The country rich, the women modest, and in every circumstance seemingly superior to Nootka. The men were more intelligent and subtle, more cruel and savage; yet from interested motives their conduct was not very unexceptionable, though in this neighbourhood, by tribes of this race, the boat of the Imperial Eagle was surprised, and the officer and crew murdered, perhaps devoured. The appearance of the land in the straits of John de Fuca is described, but it differs little from the rest on the coast, whose characteristics are lofty inaccessible hills covered with wood, a bold shore with many marks of devastation from the southerly winds. From thence they proceeded to the south, so far as Cape Lookout, and to about the forty-fifth degree of latitude. The chart of Maurelle they had reason to believe was imaginary, or purposely misrepresenting the real coast. No such river as St. Roc, it is asserted, exists in the spot where it is laid down by the Spanish navigator.

On their return, they refit in Berkeley's Sound, lat. 49° , and in their way see some of the natives of the coast by whom they are supplied with provisions. From Berkeley's Sound, they send the long boat to explore the celebrated straits of Fuca, but after a very short progress, it was attacked with great fury and resolution by the natives, so that it soon returned, with very little intelligence, but of the dangers. They had sailed near thirty leagues up the strait, where it was fifteen leagues broad, and they had a clear horizon to the east of fifteen leagues more. It is probably a passage round the Archipelago, and there is not the least reason to suppose that it can lead into the Atlantic.

The return to Nootka, the launching the North West America, the mutiny and punishment of the seamen, or the wars of Maquilla and Callicum chiefs of Nootka, can only be important from the appearance of refined sensibility displayed in the narrative. Indeed the historian will never look to scenes of exaggerated importance and descriptions, whose warm colouring is inconsistent with the state of nature and society on these coasts, for real information. We must collect it casually from facts, and from those isolated sketches of truth and nature which we have said sometimes occur. Of this kind is the following paragraph, where Tianna, the Sandwich island chief, is compared with the inhabitants of Nootka.

Indeed,

‘Indeed, there was no comparison to be made between the inhabitants and customs of the Sandwich Islands and those among whom we now resided, or of any part of the continent of America.—The former are their superiors in every thing that regards what we should call the comforts of life, and their approach to civilization. They attend to a circumstance which particularly distinguishes polished from savage life, and that is cleanliness:—they are not only clean to an extreme in their food, but also in their persons and houses the same happy disposition prevails;—while the North Western Americans, are nasty to a degree that rivals the most filthy brutes, and, of course, prohibits any description from us. Indeed, the very disgusting nature of their food is not diminished by the manner in which it is eaten, or rather devoured.—Besides, their being cannibals, if no other circumstance of inferiority could be produced, throws them to a vast distance from the rank which is held in the scale of human being by the countrymen of Tianna: nor should we pass over in this place the frequent and solemn declarations of this chief, that the natives of the Sandwich Islands possess the most abhorrent sentiments of cannibal nature; and though they may immolate human beings on the altars of their deity, they have not the least idea of making such a sacrifice to their own appetites.’

Our navigators return to Port Cox, and renew their connection with Wicananish; but this event is productive of no peculiar information, except that from the variety of winter provisions laid up, famine would not probably be one of the inconveniences.

Mr. Meares next gives some account of the country, and of the manners of the inhabitants, from which we shall collect a few facts, which we think of importance, and which may probably be best depended on, as least influenced by the obvious bias so often perceptibly guiding our author’s pen.

‘The American continent, in almost every part, presents nothing to the eye but immense ranges of mountains or impenetrable forests.—From Cape Saint James to Queenhithe, which we have considered as the district of Nootka, and inhabited by the same nations, this scene invariably presents itself, and admits of very little if any variety. In some places the country appears to be level on the coast, but still the eye soon finds itself checked by steep hills and mountains, covered, as well as every part of the low-land, with thick woods down to the margin of the sea. The summits of the higher mountains, indeed, were composed of sharp prominent ridges of rocks, which are clad in snow instead of verdure;—and now and then we saw a spot clear of wood, but it was very rare, and of small extent.

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‘ The climate of this country, that is from Cape Saint James to the southward, is much milder than the eastern coast on the opposite side of America, in the same parallel of latitude.

‘ The winter generally sets in with rain and hard gales from the south east, in the month of November; but it very seldom happens that there is any frost till January, when it is so slight as very rarely to prevent the inhabitants from navigating the sound in their canoes: The small coves and rivulets are generally frozen; but I could not discover that any one remembered to have seen the sound covered with ice.

‘ The winter extends only from November to March, when the ground is covered with snow, which disappears from off the lower lands in April, and vegetation is then found to have made a considerable advance. April and May are the spring months, and in June the wild fruits are already ripened. To the northward of King George’s Sound the cold increases, and the winters are longer; as to the southward, it of course diminishes; and we should suppose that to the southward of 45° there must be one of the most pleasant climates in the world.

‘ The mercury in the thermometer often stood in the middle of summer at 70° , particularly in the coves and harbours that were sheltered from the northern winds; but we very seldom had it lower than 40 in the evenings. Fires, however, were very acceptable both in May and September; but we attributed this circumstance in a great measure to the south east winds, which were ever attended with rain and raw cold. The north westerly winds, on the contrary, blow clear, but are rather cool. The winds which prevail during the summer months, are the westerly ones, which extend their influence over the Northern Pacific Ocean, to the northward of 30° north, as the easterly winds blow invariably to the equator from this latitude.

‘ Storms from the southward are very frequent in the winter months, but there is no reason to suppose that they operate with such a degree of violence as to prevent ships from navigating the American coast, in any season of the year.’

Nootka is certainly not destitute of useful vegetable productions, nor of useful animals; but the most important are the marine and amphibious animals. Various berries and wild leeks are not only an agreeable but a salutary food; and of these there seems to be a sufficient quantity. The deer are small; but that Nootka produces the moose with branching horns, an animal found only in the most inaccessible woods of continents, is not very probable. Our author’s language is equivocal, and whether he saw the deer, or the remains with the horns, is doubtful. The marine and amphibious animals are numerous, and the manner of killing the whale, if Mr.

Meares

Meares was not misinformed, is singularly ingenious. The chief strikes it first with his spear, dignified with the name of an harpoon, to which a bladder is affixed. The animal dives as usual, and again rises, when the attendant canoes who follow his apparent course, attack him in the same manner, till from the buoyant power of numerous bladders, he can no longer sink.

The sea-otter, the object of our adventurers' labours, is a very singular animal. Its down is thick and of a silky fineness. In the youth of the animal it is fine and brown; in the maturer age, approaching to black; and when the animal is in perfection, of a jetty black. In old age it becomes brown and dingy. The fur of the male is the most beautiful, and those which are found in China or Japan seas are preferred by the Chinese, as having more beautiful and softer skins. The sea-otter cannot remain under water more than two minutes, and its weapons of defence are strong claws on its fore-paws, and the most formidable rows of teeth, inferior only to those of the shark. The young ones cannot swim till they are two months old, and they sleep in the water on the breast of the dam, who lies on her back. They are sometimes taken in this state and struck with an harpoon, by means of which they are dragged into the canoe, when they fight with great spirit and obstinacy. But the more common method of catching this animal is by pursuit; and as the otter must often rise to breathe, it is as often wounded by different canoes which follow its track.

The seal is a timid animal, but they are said to kill it by hiding their bodies behind a rock, or by some branches, having a mask on their face, resembling that of the seal, who approaches the hunter thus disguised without fear.

The other animals are neither peculiar nor important; nor of the vegetables or reptiles does our author give any useful or interesting account. Copper they have in lumps in a malleable state, and the shining sand, of which sir Francis Drake speaks, seems to be a kind of pyrites. The Spaniards expected to find gold.

The Nootkans, we have said, are not tall, but they are robust and well proportioned. They seem to be a mixture of a northern race, joined with the robuster inhabitant of a more southern climate, perhaps of an Esquimaux joined to the Asiatics of the south. Their children's heads are swathed, and made to resemble in form the conical heads of the Tartars; but no conclusion respecting their origin can be drawn from this fact, since a similar practice prevails among many savage tribes. Like the other Americans they pluck out their beards by the roots; and when cleaned from their paint, they are said to be fair.

Neither

Neither in colour nor features do they resemble the red tribes of the continent. In person, though robust, they are crooked and ill-shaped; and in manners seemingly subtle, savage, and treacherous. The women are represented as handsome, reserved, and modest. The dress is very simple, and that of the women seems to be remarkably decent. Maquilla, the chief, used, it is said, to kill a slave once a month, as an extraordinary luxury; and our author tells us, that he owned and boasted of this horrid practice. The progress of Christianity may check this brutal custom; but Mr. Meares' threats will be remembered no longer than while he is in their sight.

Their usual food is the flesh of the whale, the oil of the whale or seal, that numerous and prolific race the herring, salmon, sardines, and the various produce of the sea; to which they occasionally add the small deer of this district, or any animal that they can meet with. Their customs are those of all savage races, and their lives an alternate change of gluttony and want, cruel wars or inactive peace. To the most filthy dirty manners their attachment is unremitting. The power of the chiefs seems to be considerable, and in some of the neighbouring tribes, the women appear to have absolute authority, which they were seen to exercise with the most fierce and savage cruelty. At Nootka the power of the women is inconsiderable; and they are even sometimes the price of peace. Wives are interchanged occasionally for political, and sometimes, we may suppose, for different purposes. The only trait of their religion we find in the following passage; but the fact, if admitted, will bear a very different interpretation.

* The young Nootkan related his story in the following manner: —he first placed a certain number of sticks on the ground, at small distances from each other, to which he gave separate names. Thus he called the first his father and the next his grandfather: he then took what remained, and threw them all into confusion together; as much as to say that they were the general heap of his ancestors whom he could not individually reckon. He then, pointing to this bundle, said that when they lived, an old man entered the Sound in a copper canoe, with copper paddles, and every thing else in his possession of the same metal: — That he paddled along the shore, on which all the people were assembled, to contemplate so strange a sight; and that, having thrown one of his copper paddles on shore, he himself landed. The extraordinary stranger then told the natives, that he came from the sky,—to which the boy pointed with his hand,—that their country would one day be destroyed, when they would all be killed, and rise again to live in the place from whence he came. Our young interpreter explained this circumstance of his narrative by lying down as if he were

were dead ; and then, rising up suddenly, he imitated the action of soaring through the air.

‘ He continued to inform us that the people killed the old man, and took his canoe ; and that from this event they derived their fondness for copper. He also gave us to understand that the images in their houses were intended to represent the form, and perpetuate the mission of the old man who came from the sky.’

This stranger, if attended to, might have been another *Mango Capac*, and this part of the coast in a more civilized state.

Mr. Meares in the *Felice* returned to the Sandwich islands for provisions. He seems to have been received by these islanders with much attention and regard. In salting down the pork, he advises, in the larger joints, to separate the bone almost entirely, so as to permit the salt to penetrate well to those parts of the flesh which remain attached to the bone. Salt alone, placed in layers, is better, he observes, than pickle, and the moon seems also, he thinks, ‘ to possess a putrefying influence.’ With the provisions collected in this voyage our author reaches China in safety. China to these voyagers is almost their home ; and in this extended scale of commerce, it must afford the philosopher a subject of curious reflection to observe, that the reputed limit of the known world is now little more than a port of refreshment for the adventurer who pursues new speculations in an ocean formerly little known, and on coasts which the voyages within the course of a very few years only pointed out with tolerable accuracy.

The last part of this volume contains the voyage of the *Iphigenia*, captain Douglas, from Samboignan to the North West Coast of America, and from thence to the Sandwich Islands. This course affords few subjects of curious or useful remark. We shall step hastily over it, noticing only a few facts which may appear entertaining.

Captain Douglas was for a time detained by the extortions of the governor of Samboignan, which may be as much attributed to political motives as to avarice ; for even at that time it must appear of importance to every intelligent Spaniard, to deprive the English of the advantages which might attend this trade, which, if pursued, would establish a power too near the mines of Potosi and Peru. From Samboignan they pass very near the Pelew Islands, and are followed with eagerness by canoes, perhaps by *Abba Thule*, the father of *Le Boo*, whose picture is an interesting one when coloured by Mr. Keate. At all events, independent of any colouring, the facts are very affecting. Captain Douglas hastened on. He knew nothing of *Le Boo*, and thought the canoes were for the purpose of trade. The *Iphigenia* pursued a north easterly course to Cook's River,

and

and came down the coast to Nootka, meeting in his way with the fact we formerly mentioned, in which the female despotism appeared so severe and cruel.

From Nootka captain Douglas departs with the North West America to the Sandwich Islands, and carries back Tianna. Amidst the most unreserved joy and apparent gratitude for the restoration of their friend, their relation, and their countryman, various attempts were made to seize their anchors, and one treacherous plan was laid to obtain possession of the sloop, and to murder the crew. When the cable parted, in consequence of their anchoring in foul ground, divers were brought, who, after some superstitious ceremonies, dived in pursuit of it. One was under water seven minutes and a half; but he was brought up by the others in a senseless state, with streams of blood issuing from his mouth and nostrils. As the Iphigenia only has anchored in Karakakoa Bay, since the death of captain Cook, we shall add our author's account of the subsequent political events of the island: they are in many respects curious.

‘ Many of the chiefs whom Captain King thought proper to particularize, are no more; and among them the friendly Kairee-keea and the treacherous Koah:—but Eappo, the faithful Eappo, who may be remembered as having brought the bones of the illustrious navigator to Captain Clerke, and who had married Tian-na’s sister, was now on board the Iphigenia, where he had lived ever since her arrival off the island. As to the revolution in the government, the most accurate account, in the opinion of captain Douglas, was as follows:—

‘ About three years after the death of Captain Cook, Maiha Maiha,—for that was the name which Tome-homy-haw then bore, had occasion to send a message to the King Terreeoboo, who, for some reason which did not appear, thought proper to put the messenger to death.—But Maiha Maiha being a very powerful chief, and possessing a very bold and active disposition, contrived to unite the greater part of those of his own rank to join with him in forwarding his revenge. He, therefore, went immediately to the king, who became so irritated by his provoking accusations, as to resent the insult by a blow. On this act, which we must suppose to have been considered as in the highest degree criminal in the king himself, the chiefs of the island sat in judgment during three days, when it was determined by their councils, that Terreeoboo should suffer death. A cup of poison, therefore, was instantly prepared, and being given to Maiha Maiha, was presented by him to the king, who refused it twice; when being informed that another and more dishonourable mode of punishment was at hand, and observing that an executioner stood by his side, in a

state

state of preparation to knock out his brains, the wretched sovereign, in an agony of despair, drank off the deadly draught, and in a few moments fell from his seat and expired.

‘ The same power which doomed Terreeoboo to death, deprived his son of the royal succession, and Maiha Maiha was proclaimed king, by the name of Tome-homy-haw.—Such was the most probable history of this revolution;—though the king himself took no common pains to persuade captain Douglas that Terreeoboo was poisoned for having encouraged the natives to the murder of captain Cook.’

In the return to America we find one fact of some curiosity, which we shall select. In lat. from $36^{\circ} 10'$ to $36^{\circ} 19'$ north, and in longitude $208^{\circ} 15'$ to $210^{\circ} 13'$, in the month of April 1789, it was found impossible to steer the ship for two or three days together, as the compasses flew about each way four or five points in a moment. Capt. Douglas observed the same appearances in the same latitude, the year before. At Nootka, the seizure of the ships by the Spaniards occurred; and, after the Iphigenia was delivered up, captain Douglas returned to China. In his way he stopped at the Sandwich Islands for provisions, and very narrowly escaped being cut off, with his whole crew, by the treachery of these islanders, who in every instance were ready to take advantage of inadvertence or security, and who were only to be checked by terror.

The Journals and an Appendix conclude the volume. The latter contains Mr. Mears' Memorial, and the different instructions to officers, who were sent in the various commercial, or other attempts, and which afford nothing which deserves our attention in this place.

The political circumstances of the moment has rendered this publication of some importance, and we have attended to it with care. We cannot, however, speak of it in any very warm terms of approbation. In the scientific part, Mr. Meares appears too anxious to find a communication between the Northern Pacific and the Atlantic, through Hudson's or Baffin's Bay. This anxiety, with the evident alterations of position of places in his map, noticed by captain Dixon, makes us receive every fact of this kind with caution and reserve; nor can we compliment him with having added materially to our geographical knowledge. The convenient harbours which he found, and which he has carefully described, are useful rather in a nautical than a geographical view; and we must wait till we receive more perfect accounts of the track of the Washington, before we can consider these hints as improvements. The facts which relate to the people of Nootka and the neighbouring district, are to be received with equal caution. Our author

author evidently wishes to place them in a respectable and advantageous point of view, which, from incidental circumstances, even in the present volume, we suspect they do not deserve. Of the language we have already spoken, and we have only to regret the prevalence of that false taste which makes these affected refinements so popular: of the maps too we have said enough. The accuracy of the charts of particular ports is, however, unimpeached.

Of the adventitious ornaments we can say also little in praise. The plates are in the black mezzotinto style, well calculated to express the effects of light and shade, but without any other particular merit. One of our corps supposed, or affected to suppose, that they were the productions of the Nootkan artists, and thought them, on that account, entitled to considerable attention.

A Narrative of the Building, and a Description of the Construction of the Eddystone Lighthouse with Stone: to which is subjoined an Appendix, giving some Account of the Lighthouse on the Spurn Point, built upon a Sand. By John Smeaton, Civil Engineer, F. R. S. Folio. 3l. 3s. boards. Nicol. 1791.

ABOUT fourteen miles S. S. W. from Plymouth, are the Eddystone rocks, somewhat within a line drawn from the Start to the Lizard Points; and, though they are in the direction of all vessels, coasting up and down the Channel, yet there was not any light-house to mark their place, until that erected by Winstanley, in 1696. From the draughts of this building it seems probable that it was the intention of the architect to have it destroyed as soon as possible; but it is certain that he had the highest opinion of its strength, for he often expressed a wish to brave a tempest in this dangerous situation. His desire was completely gratified, for he was there in the great storm of 1703, which swept away the building from its foundation.

Three years elapsed before an act passed to enable the master, &c. of Trinity House to erect another light-house on these dangerous rocks. Mr. Rudyerd, a mercer on Ludgate-hill, a man undistinguished by any mechanical performance before or since, was chosen as a proper person for this important work; and our author says, that he directed the performance of it in a masterly manner, so as perfectly to answer the end for which it was intended. He saw the errors of the former building and avoided them; but, by using timber for his principal material, this light-house was liable to be destroyed by another element: after standing forty-six years it was burnt down. Our readers may probably have heard of

the terrible accident which happened to one of the keepers, an account of which was inserted in the Philosophical Transactions. While he was looking up at the conflagration, a considerable quantity of melted lead passed through his mouth into his stomach, of which he died seven days after.

Mr. Smeaton being applied to for the next light-house, he executed the business like a man of genius and science. In what manner he proceeded, till the whole was completed, is the principal subject of his book ; a subject in which we found ourselves much interested, from the importance of the work, and the very great abilities of the architect. We embarked with him in all his voyages to the Eddystone, which are more important and arduous than at first may be thought ; we attended him at laying every foundation stone, and had by degrees contracted so great a respect for this excellent artist that when we saw him mounted on the four-plank scaffold, for fixing the ball, we trembled lest a slight gust might have sent Mr. Smeaton to accompany Mr. Winstanley.

Necessary plates illustrate this work, some of which are well executed ; others but indifferently, particularly the vignette in the title : indeed the author seems conscious that it poorly expresses the stupendous subject of the sea breaking 100 feet above the top of the light-house.

The account of the light-house on the Spurn, though equally ingenious, yet as it wants the danger, so it wants the interest of the other.

Some entertaining anecdotes enliven the work, to which we will add one not to be found in it. When the author was on one of his journeys, he said, 'The first light-house was blown away ; the second was burnt down ; what will be the fate of the third I cannot foresee ; but I may venture to pronounce that it will not be demolished by fire, wind, or water.' And the prediction is so far fulfilled. As it contains nothing combustible, it cannot be burnt, and it has hitherto (from 1759), withstood all the fury of the winds and waves, with which it is constantly assailed.

The perusal of this book will afford the reader entertainment ; and we recommend the study of it to all persons who may be employed in works of a similar nature.

Rights of Man : being an Answer to Mr. Burke's Attack on the French Revolution. By T. Paine. Secretary for Foreign Affairs to Congress in the American War, and Author of the Work intitled Common Sense. 8vo. 2s. 6d. Johnson. 1791.

AND what is a plot good for, says Mr. Bayes, but to introduce 'fine things ?' In the same way, one who would estimate any literary production from its eventual effects, *March, 1791.* A a might

might ask, what is the use of Mr. Burke's work but to draw from his opponents sarcasms against kings and governments? It is, indeed, a fruitful source to Mr. Paine; and we wish we could congratulate him on his success: but, with all our care, we have scarcely found, in the present Answer, one atom of that useful quality, Common Sense, which, if our author ever possessed, he seems to have exhausted it in the production of his favourite first-born. For instance, he is very angry that, at the revolution, the parliament should pretend to bind its successors; yet the national assembly, that miracle of wisdom and uprightness, has forbidden future assemblies from meddling with their 'organizations.' He compares, in barbarity, the execution of Damiens with the hanging, drawing, and quartering in this country, forgetting only that the hanging, in *England alone*, precedes the other operations.—Mr. Burke observes, that the people of England would resist a practical assertion; but Mr. Paine, to support his own argument, converts the object of that author's remark into an abstract proposition, (p. 7.)

In politics, Drawcansir himself is a poltroon to our author. 'Constitution is a thing (p. 53.) antecedent to government.' This is a bold step; for it says, very nearly, that the exception precedes the rule, the limitation the object, and the 'creature' its cause. If 'government' means any thing, it is the gradual permanent establishment of accidental, personal, or political superiority. In every government, the origin of which we have been able to trace, this source is constantly observable; and we may reasonably conclude that the remark would be confirmed by the history of others, were their origin not involved in obscurity.

We shall take our next remark from our author's system of political œconomy. To examine the quantity of silver and gold circulating in the different kingdoms of France and England, Mr. Paine estimates (145, &c.) the quantities imported at Lisbon and Cadiz, and then traces the quantity that finds its way into England. But, according to his idea, the quantity of the precious metals imported must all become money, and where then, he asks, is that money? It goes to Russia and Sweden for naval stores, and to France, through the hands of the smuggler. We will not contend about trifles; but the money that goes to Russia purchases, besides naval stores, iron: iron, in the hands of English workmen, may become as valuable as silver; and the silver of France purchases, at an hundred thousand per cent profit, the steel works of Birmingham. The smuggler undoubtedly carries away specie, and so does the China trade from France and Flanders, as well as from England. If France too did not con-

vert her silver into something besides eoin, whence would the assembly have derived the glorious contribution of silver buckles, for the use of the state? a contribution so fashionable, that a provincial town is said to have ordered buckles to be manufactured for the purpose, forgetting that the disinterested patriots, who receive their daily stipend for attending the national business, would have been better pleased with the current coin of the kingdom, even though it bore the impression of the sovereign.

Mr. Paine is at some trouble to prove, that the advantages of the French revolution are not so considerable to England as is supposed, since the silver is too bulky to be drawn even by horses. It may, however, be observed, that the English have still a little Common Sense, and are contented with the advantages derived from the difference of exchange, which they know will in the end have the same effect: they know that every guinea spent in England by the refugees must be ultimately derived from France; and, if they wanted farther evidence, they would ask Mr. Paine, how French bills are discounted in the neighbourhood of the Palais Royale? Is *that mode* a mark of national prosperity? — Certainement Monsieur ç'a n'ira point*.

We have brought together some of our author's eccentricities, in which we have necessarily mixed a little ridicule with our argument, since such observations can scarcely be treated with gravity. — The answer to Mr. Burke precedes; but a great part of the work is employed in a narrative of the French revolution, derived, it is said, from the information of M. de la Fayette, to whom Mr. Paine politely makes an apology for addressing him by his title. But we shall select a passage or two, not only from the Answer, but from the Narrative.

The first passage of importance is that already alluded to, in which the author is very angry that any body of men should pretend to bind their posterity. Undoubtedly they cannot; but the continuance of this regulation shows the wisdom of those who suggested the measure, and carried it into execution. A sacred reverence for the revolution would doubtless neither protect a tyrannical king, nor afford toleration to unconstitutional conduct; and it is not improper now to add, in opposition to Mr. Paine's sneers at the conclusion, respecting the choice of a German prince, that England has had no reason to regret the measure. The English constitution has been supported, notwithstanding some trifling shocks, with great

* Alluding to the French popular democratic song, whose burthen is c'a ira.

firmness by the house of Brunswic, and even the continental wars been rendered conducive to the increase of the British marine, and consequently the British power. What is the rest of his argument on this subject but an amplification of the observation of a Dutch statesman, that the expences of a monarchy are sufficient for the whole maintenance of a frugal commonwealth? Our author's jargon, respecting constitution, we shall transcribe.

‘ A constitution is not a thing in name only, but in fact. It has not an ideal, but a real existence; and wherever it cannot be produced in a visible form, there is none. A constitution is a thing *antecedent* to a government, and a government is only the creature of a constitution. The constitution of a country is not the act of its government, but of the people constituting a government. It is the body of elements, to which you can refer, and quote article by article; and which contains the principles on which the government shall be established, the manner in which it shall be organized, the powers it shall have, the mode of elections, the duration of parliaments, or by what other name such bodies may be called; the powers which the executive part of the government shall have; and, in fine, every thing that relates to the complete organization of a civil government, and the principles on which it shall act, and by which it shall be bound. A constitution, therefore, is to a government, what the laws made afterwards by that government are to a court of judicature. The court of judicature does not make the laws, neither can it alter them; it only acts in conformity to the laws made; and the government is in like manner governed by the constitution.

‘ Can then Mr. Burke produce the English constitution? If he cannot, we may fairly conclude, that though it has been so much talked about, no such thing as a constitution exists, or ever did exist, and consequently that the people have yet a constitution to form.

‘ Mr. Burke will not, I presume, deny the position I have already advanced; namely, that governments arise either *out* of the people, or *over* the people. The English government is one of those which arose out of a conquest, and not out of society, and consequently it arose over the people; and though it has been much modified from the opportunity of circumstances since the time of William the Conqueror, the country has never yet regenerated itself, and is therefore without a constitution.’

The account of the Revolution of France is not very different from those which we have had occasion to give, interspersed, occasionally, with some secret history, which may be true or false: we cannot decide. One specimen of this kind also we shall select.

‘On carrying this motion, the national representatives, as had been concerted, sent an invitation to the two chambers, to unite with them in a national character, and proceed to business. A majority of the clergy, chiefly of the parish priests, withdrew from the clerical chamber, and joined the nation ; and forty-five from the other chamber joined in like manner. There is a sort of secret history belonging to this last circumstance, which is necessary to its explanation : it was not judged prudent that all the patriotic members of the chamber, styling itself the Nobles, should quit it at once ; and in consequence of this arrangement, they drew off by degrees, always leaving some, as well to reason the case, as to watch the suspected. In a little time, the numbers increased from forty-five to eighty, and soon after to a greater number ; which, with a majority of the clergy, and the whole of the national representatives, put the mal-contents in a very diminutive condition.’

Our readers may now amuse themselves with the rest of this work, or they may consign it to oblivion. The adventurous author has thought proper to abuse the English nation in its metropolis. Had he tried a similar experiment with France in Paris, or with America in Philadelphia, he would not have escaped with contempt only ; for no truth is better established than this—‘ *Republics show no mercy.*’

The evils arising from such inflammatory publications are great and extensive ; for though the fallacy of the arguments cannot impose upon a well-informed mind, they produce unhappy effects upon the ignorant, by weakening their attachment to the constitution, and rendering them uneasy under the mildest administration. On the whole, notwithstanding the sage and patriotic resolution of the Society for Constitutional *Information*, we may observe, that the author of the pamphlet before us is more fit for ‘treasons, stratagems, and spoils,’ than for suggesting useful remarks with respect to the government of a free and enlightened people.

A Letter from Mrs. Gunning, addressed to his Grace the Duke of Argyll. Second Edition. 8vo. 3s. Ridgway. 1791.

THE Public are not entirely unacquainted with the event which has occasioned the pamphlet before us. Some light was expected to be thrown upon the subject by Mrs. Gunning’s Letter to the Duke of Argyll ; but though we have examined it with attention, it does not enable us to penetrate the veil which envelopes this dark transaction. Perhaps some affidavits, which we understand are soon to be published, may prove more conducive towards unravelling the

mystery. The affair has generally been considered in a very serious point of view; and indeed where the fame of a young lady of virtue and rank is concerned, it can scarcely be otherwise; yet there is some reason to imagine that it has originated in frolic, and that without the smallest collusion on the part of miss Gunning. We cannot avoid recollecting, on this occasion, what happened between the late duke of Marlborough and Mr. Barnard—the affair of Elizabeth Canning, of Simonds the Jew, and Fanny the Fantom.

Though curiosity cannot be much gratified by any information contained in this pamphlet, we shall present our readers with two extracts. In the first, the suspicions expressed by Mrs. Gunning are of a very extraordinary nature.

‘ From the beginning of the present month so many *events* have taken place, that I must apply to my *own* memorandums, which I *regularly* and *daily* made, to lay before your grace such facts as occurred to my *ever watchful* observation. My suspicions of general Gunning’s *intentions* to *impede* the happiness of his daughter, were from the date on which I shall take up the affair. No longer *suspicious*, *his conduct* had explained them into *certainties*, but to what *extent* he meant to carry his *devices*, I had not the most *distant* idea. How, could it possibly enter into the *imagination* of *one* parent, that *another* would have gone the *desperate* lengths that *other* has *since* gone? A *surmise* of the kind would have been *criminal*, it would have been an *offence* *against* *nature*! and could not have proceeded from any heart but that *impenetrable* one, whose owner has persisted in his *cruel machinations* with *effrontery*, for which *humanity* *has no precedent*! I turn with *horror* from the subject!!!.

‘ *MEMORANDUM I. Feb. 2.* ‘ Between eleven and twelve this morning, general Gunning had sent off his groom with a letter, to the _____ of _____, which letter he has written in his dressing-room, but has not shewn the contents to any of his family.’

‘ On this *first* memorandum, my lord, I shall take the liberty to *observe*, that I have omitted, and from motives that none of the *parties concerned* will disapprove, to mention the name of the *respectable* personage to whom the letter was sent, or into *what country*, your grace being already acquainted with the *particulars* I have suppressed.

‘ My *next* *observation* on the *above* memorandum is, that the *groom* who was sent *with* the letter is not looked upon as a *family servant*; he *eats* and *sleeps* in the house, but *lives* by day with his *horses* at the *livery-table*, *sometimes* attending *his master* in his *rides*, and *sometimes* *any lady* *who happens* to be under general Gunning’s *protection*. I have not seen *this man* more than *three times*

times since his master brought him back from Ireland, in May last, where he had attended him with other servants; and have never spoken to him but to ask him about his wife and children, who being left in a distant part of the country, compassion had instigated me to keep from starving. I have too much pride, to say any thing of my daughter's knowledge of this wretch.'

The next extract is from that part of the Letter in which miss Gunning is introduced as vindicating herself from the suspicions entertained of her conduct.

‘Accusations alledged against me.

‘I. I am accused of having written letters in the name of the D— of M——, and of L— B——, and also of writing anonymous letters.

‘II. I am accused of going to Mrs. Bowen's lodgings, on Sunday the 6th of February, about the forged letter produced by her.

‘III. I am accused of having bribed papa's groom, not to go to Blenheim with a letter from papa to the D— of M——, and a narrative of my writing, which I had drawn out at the request of papa for the purpose (as he said) of being sent to the D— and D— of M——; that I bribed the groom, not *really* to go to Blenheim, but to *say* he had been there and to deliver, as coming from the D— of M——, a letter that I had given him for that purpose.

‘The following preamble was affixed by my daughter, and written by herself, immediately after the accusations and her answers to them, and before the awful oath was administered to her:

‘ As I may perhaps from my time of life be supposed not to understand the nature of the solemn oath I am about to take to attest my innocence of the above charges, I beg to assure the magistrate who shall administer the oath to me and the witnesses present, that I know, on the truth of what I assert depends my character in this world and my everlasting salvation in the world to come.

‘ The oath being administered by William Hyde, esq. one of his majesty’s justices of the peace, and witnessed by two gentlemen of probity, was signed by herself, E. GUNNING.’

After the perusal of this Letter, which is written in an impassioned strain, full of maternal tenderness, and, we are sorry to say, interspersed with conjugal indignation, we cannot help being of opinion, that miss Gunning has been impeached with too great precipitancy and violence, and upon presumptions by no means sufficient to justify any unfavourable imputation. We hope, however, when the thread is discovered which will lead through the mazes of the labyrinth, the conduct of all the parties will appear in a light less disadvantageous than at present. We sincerely wish for the arrival of that happy period; and in the mean time, our warmest sympathy attends Mrs. Gunning and her daughter, who we are glad to find are taken under the protection of a duchess, so benevolently disposed by nature, and so well qualified by fortune, to alleviate and sooth their distress.

MONTHLY CATALOGUE.

DIVINITY, RELIGIOUS, &c.

A Sermon preached before the Lords Spiritual and Temporal, in the Abbey Church of Westminster, on Monday, January 31, 1791, being the Anniversary of King Charles’s Martyrdom. By William, Lord Bishop of Chester. 4to. 1s. Rivingtons. 1791.

THIS admirable discourse is well adapted to the anniversary of the event on which it was preached, and to the present situation of political circumstances in a neighbouring kingdom. While Christianity has meliorated despotism, it has not abolished a due subordination; and the bishop, in opposition to the present fashionable system, endeavours to show, that natural rights must be subordinate to political situations, that government is closely connected with religion, and the outward forms with the real body of religion; while, at present in France, religion, government, and good order, have been equally sacrificed to the spirit of innovation and rash experiment.

Concio

Concio ad Clerum in Synodo Provinciali Cantuariensis Provinciae, ad D. Pauli, Die 26 Novembris, 1790, habita A Johanne Randolph, S. T. P. 4to. 1s. Rivingtons. 1790.

We have read with great pleasure this very elegant and classical Discourse from 2 Timothy iv. 5. The directions of the apostle to Timothy, the preacher thinks still applicable and proper to be kept in view by Christian ministers. For this purpose he gives a short history of the progress of heresy to this time; and we shall transcribe Dr. Randolph's remarks on the fashions of the present day, after he has enlarged on the various improvements in different branches of science.

‘ Tum vero ex tanto in rebus Physicis successu accrebit rabies nova inveniendi in aliis omnibus, in quibus regio incognita non æque patet; adeo ut Veritatem præcurramus, ignari quantæ sit Prudentiæ parta conservare, et quod sanum est in antiquis constanter tueri. Etiam in Theologia nova aucupamur, et de novis inventis sæculi nostri gloriamur. Fateor nunquam satis explorari posse, quæ ad illustrandam et confirmandam Christianam Fidem faciant, sed Religionem specie novam post Revelationem tot annos datam quærere, summæ esse dementiæ mihi videtur. Cavendum est certe in rebus sacris, ne Doctrina dum cursu præcipiti fertur fluxa sit et instabilis. Eadem instabilitas, et nova captandi studium pessimo exemplo in mores etiam profluxit, unde sacrarum rerum reverentia et cura, nequid pejus dicam, a prætina severitate multum descivit. Tum vero Commercia vitæ in majus aucta, prout animum ad humana negotia promptiorem et habiliorem reddunt, et in iis gerendis magis apertum et liberalem efficiunt ita tamen eum occupant, ut Religioni et sacræ meditationi minorem locum relinquant, et divinorum officiorum fastidium inducant.’

A View of the external Evidence of the Christian Religion. By the Rev. James L. Moore. 8vo. 2s. Rivingtons. 1791.

This is an interesting and elegant little work. The external evidence arises from the life of our blessed Saviour, the concurrence of incidental information in profane historians, the miracles of Christ, and the progress of Christianity. In this sceptical age, it may be necessary to add, that our author is a warm defender of the divinity of Christ.

A Review of the Policy, Doctrines, and Morals of the Methodists. 8vo. 1s. Johnson. 1791.

Our author seems to dread the policy of the Methodists, as much as he undervalues their doctrine and morals. Their policy is undoubtedly considerable, and the sect greatly increasing: whether this will ultimately contribute to amend the morals, or increase

increase the happiness of mankind, must be left to future experience.

Antinomianism Unmasked and Refuted; and the Moral Law proved from the Scriptures of the Old and New Testament, to be still in full Force as the Rule of the Christian's Conduct. By Maria de Fleury. 8vo. 1s. Simmonds. 1791.

We have no great predilection for Antinomianism, and consequently can coincide with Maria de Fleury, in her eager attempt to unmask this whimsical visionary system. We think her, however, a little too violent; and, in her representations of the doctrine, she has in some instances pictured its most obnoxious extremes.

Emanuel Swedenborg's New Year's Gift to his Readers, for 1791. 8vo. 6d. Simmonds.

‘Though dead he speaketh:’ he speaketh in his works, enforced by the pen of a commentator, whose indignation is excited, that the translator of Emanuel’s ‘Arcana’ should have so far mistaken his meaning as to represent him of opinion that future punishments were eternal. There is an account also of some choice mysteries from manuscripts, if we were but wise enough to understand them. The veils, our readers may be sure, did not assume these figures for no purpose: every fold is replete with mystic meaning; but we have unfortunately none of the enlightened in our corps.

P O E T I C A L.

The Triumph of Divine Mercy; or, a Predictive Poem of the present Revival of pure Christianity in these Nations, by that popular Divine and Reformer, the Rev. John Wesley, and the late celebrated Mr. George Whitefield. 12mo. 6d. Printed for the Author. 1791.

Whether happy or not happy in the execution of his plan, all our author means is to raise a moral thought from St. Luke xiii. 6, 7, 8, 9, and apply it to his native country. Such is his own account of the plan: we can commend his piety, commiserate his sufferings, be ‘candid’ and be silent.

An Heroic Epistle to the King. With a Postscript to the Hon. William Pitt, Esq. Dedicated to Peter Pindar, Esq. By his affectionate Cousin, Thomas Pindar. 4to. 1s. 6d. Ridgway. 1791.

— Ceratis ope Dedalæa
Nititur pennis, vitreo datus
Nomina ponto.

Oedipus,

DRAMATIC.

Oedipus, King of Thebes, a Tragedy, from the Greek of Sophocles: translated into Prose, with Notes critical, and explanatory; by George Somers Clarke, B.D. 8vo. 2s. Rivingtons. 1790.

Mr. Clarke professes his having undertaken this translation by a friend's advice, who imagined that such an attempt, if properly executed, 'would possess *obvious* advantages over the metrical translations, and prove of superior utility, as well to the classical student, as the English reader.' We are at a loss to conceive what these advantages can be, exclusive of the assistance which it may afford the young student by its fidelity to the original: in which respect the Latin translation, that in most editions accompanies it, is not unfrequently deficient. This gentleman, perhaps, is ignorant, as he says nothing concerning it, that a prose translation was given of Sophocles' Tragedies in 1729, by Mr. Adams, formerly of St. John's College in Cambridge. In point of elegance the two translations are nearly on an equality: to which neither of them has any great pretensions. But as to fidelity, Mr. Clarke's, so far as we have compared them, is infinitely superior to his predecessor's.—'He has purposely, he says, neglected to notice the divisions into strophe and antistrophe, which constitute no material interruption of the sense, would probably perplex the English reader, and to every other would be superfluous in a prose translation.' We cannot but entertain a different opinion. The mere English reader, or any other, who does not refer to the original, will frequently lose the spirit, nay even the meaning of the chorus, when its constituent parts are thus jumbled together. The preservation of the strophe and antistrophe is sometimes as necessary towards the elucidation of its design, as the A and B, or the question and answer, in a dialogue.

The notes annexed do not appear to us as considerable in number or consequence. The author has formed a different opinion. He assures us that he has not encumbered his translation with those which are useless.

'He trusts, it will be allowed him by the classical reader, that he has not inserted any, even those which are of a more philosophical nature, which do not either tend to establish new, and better interpretations of the several passages than what were before received, or add force and precision to the old acceptations; and, that far the greater number of the notes are plain and short. Upon a similar plan, the *SEVEN AGAINST THEBES* of *Æschylus*, is ready for the press; and, as far as the endeavours of the translator have availed, the future reader of that translation, who would be gratified at seeing difficulties surmounted by the assist-

auce

ance of conjectural and expository criticism, is at liberty to form some favourable expectation, in which he will not be entirely disappointed. Whatever may be the general opinion, either of the novelty on the one hand, or of the utility on the other, of such a kind of interpretation of the Greek tragedians; it is offered to the public, as a production of academic leisure.'

Whatever may be the *utility* of this undertaking, it certainly has not the slightest pretensions to *novelty*. *Æschylus*, however, one of whose tragedies is already, we are told, translated, will afford Mr. Clarke a more arduous task, and possibly contribute more to his honour. In his works he will find an ampler field for literary exertion. The steed acquires but little credit in passing safely through a road where the track is beaten and no difficulties occur to impede his progress.

Memoirs of his own Life. By Tate Wilkinson, Patentee of the Theatres Royal York and Hull. 4 Vols. 12mo. 12s. Robins. 1791.

This monarch of the boards condescends to be his own historiographer and biographer; in which capacity he exceeds every other monarch, except Colley Cibber, for even the great Frederic left the task of his biography to an inferior pen. The story is an eventful one, and comprehends the rise and fall of kingdoms, campaigns, battles and skirmishes without number. But, as Livy had his *Patarianism*, Johnson his triads and quaternions, and Gibbon sometimes too much pompous splendour, so our present king (we mean the king of York and Hull), is a little too digressive in his style, and less exact and careful in his chronology. But to drop the buskin, we must own that we have been greatly entertained by these Memoirs; they comprehend many minuter parts of the history of the stage from about the year 1750, and furnish an agreeable supplement to the 'Dramatic Miscellanies' of Davis. The letters of Mrs. Baker, at the end, are excellent: we regret that they are not more numerous.

Lindor and Clara; or, the British Officer: a Comedy, in Five Acts. By Mr. Fennell. 8vo. 1s. 6d. Williams. 1791.

We almost suspected from the first act that there was an error in the title, and that Lindor and Clara would be a most affecting tragedy: indeed in every part there is too great a tendency to the heroic and the pathetic. But, when we arrive at Gibraltar, for by anticipation the siege is carried on, as it probably will be in some future time, we find much humour extracted from bombs and balls; and a brace of weddings stamp the character of the piece. If it is ever acted, we would recommend it to be by desire, on the evening after a review.

The

The Woodman. A Comic Opera, as performed with Applause at the Theatre Royal, Covent Garden. The Music composed chiefly by W. Shield, the Poetry by Mr. B. Dudley. 8vo. 10s. 6d. Longman and Broderip. 1791.

Of the music we cannot say too much—of the poetry too little.

NOVELS.

Maple Vale; or, the History of Miss Sidney. 3 Vols. 12mo. 7s. 6d. Verner. 1790.

This is a pleasing chit-chat novel, unreasonably extended. We have said that souls have no sexes, yet we think that there is sufficient *internal* evidence to conclude that the author is a female. Are we, in this, inconsistent? We trust not: novels of this kind are constructed mechanically; the mind has no share in the business.

Lindor and Adelaide, a Moral Tale, in which are exhibited the Effects of the late French Revolution on the Peasantry of France. By the Author of Observations on Dr. Price's Revolution Sermon. 12mo. 3s. Stockdale. 1791.

If the friends of civil liberty can declaim on the advantages of restoring the natural equality of mankind, and breaking the fetters of despotism, their opponents, or rather the friends of a proper subordination, and the necessary distinction of different ranks in society, can be equally eloquent on the want of that protection which alleviated the sufferings of the lower ranks, that kindness which cheered their toils, and that benevolence which poured oil and wine into their wounds. Each party is right, for the one views the lord, and ultimately the king, as tyrants and oppressors; the other as benevolent guardians and powerful protectors. The last is the view of our present author, and he draws a gloomy picture of the inconveniences which have resulted from the late revolution: when the seigneur resembled the marquis d'Antin, his loss must be a misfortune; and for the credit of human nature we hope that many did resemble him. In other respects, this tale is interesting and pleasing, interspersed with many judicious observations on that wild licentiousness which assumes the garb of liberty, and the irregular exertions of the spirit of innovation, under the guise of a reform.

Memoirs of Maria, a Persian Slave. 2 Vols. 12mo. 5s. Robinsons. 1791.

There are many circumstances which lead us to think that these Memoirs are genuine, or at least have their foundation in truth. They are very interesting and entertaining. The little improbabilities which appear may arise from our ignorance of eastern customs, or be owing to the European additions, *retouchings* which

may have been supposed necessary to adapt them for the 'English market.' The second volume we were particularly pleased with.

A Sicilian Romance. By the Authoress of the *Castles of Athlin and Dunlayne.* 2 Vols. 12mo. 6s. Hockham. 1791.

This very interesting novel engages the attention, in defiance of numerous improbabilities and 'hair-breadth scapes' too often repeated. Perhaps, on a second reading, these might be still more disgusting; but it is an experiment that we can scarcely venture to try but with modern novels of the first class. We found the tale, we have said, very entertaining, and involved with art, developed with skill, and the event concealed with great dexterity. If our author again engages in this task, we would advise her not to introduce so many caverns with such peculiar concealments, or so many spring-locks which open only on one side.

Somerville Bower; or, the Adventures of Sophronia. In a Series of Letters. 2 Vols. 12mo. 5s. Bladon. 1791.

There is no little art conspicuous in the conduct of this Novel, not in the unexpected changes of events, contrast of characters, or a skilful arrangement of the story, but in spinning out such a meagre tale to the extent of two volumes. At last, the haughty beauty is brought to reason by the small pox, and obliged almost against her will to accept of an amiable baronet and twenty thousand a year. Not to be outdone in generosity, however, the author gives his heroine at last *thirty thousand pounds*—in the lottery.

Woodley Park; or, the Victims of Revenge. By a Lady. 2 Vols. 12mo. 5s. Wilkies. 1791.

In the whole course of our literary experience we have seen nothing more childish, trifling, and improbable, than the work before us.

Foscari, a Venetian Tale, founded on Fact. 12mo. 3s. Lane. 1791.

This tale is, we suspect, older than the present season, though modernised to fill up the vacuum which the secession of our best novel-writers has occasioned. It is interesting and pathetic; the costume is also well preserved; but we cannot cordially praise a tale where vice triumphs, and virtue suffers for faults not her own.

The Baron of Manslow, a Novel from the German. 2 Vols. 12mo. 6s. Lane. 1791.

If the German novelists possess some knowledge of the human heart, they do not display much skill in interesting it. The pathetic scenes are ill arranged, and their force is weakened by improper management. The Novel before us, in better hands, would have been highly pleasing and forcibly interesting. At present,

present, though it deserves great commendation, its merit is obscured by unskillful arrangement. The descriptions are often highly finished; but the sensibility is too refined, and the notions of honour are almost ridiculously romantic.

CONTROVERSIAL.

The Barber; or, Timothy Priestley shaved, as reflected from his own Looking-Glass. The Operator, William Huntington, S. S. 8vo. 2s. 6d. Terry. 1791.

If the saints will quarrel it is not for us to interpose. Mr. T. Priestley is a minister, and the sentiments contained in a late publication of his 'Christian's Looking-Glass, or the Timorous Soul's Guide,' has roused the indignation of Mr. Huntington, S.S.

An Appeal to the Public, occasioned by a Letter from the Rev. J. Pope, a Dissenting Minister, at Stand, near Manchester. Containing a Charge of the Use of the unworthy Methods of Misrepresentation and false Citation, in some Observations on the Miraculous Conception. By N. Nisbett, M.A. 8vo. 1s. Johnson. 1791.

Mr. Pope wrote with some severity to Mr. Nisbett, concerning his quotation from the interpolated Epistle of Ignatius, while he sheltered himself by Dr. Lardner's opinion of the smaller Epistles. Some other reprobations also occur; and if we admit for a moment Mr. Nisbett to have been too hasty, we may consider Mr. Pope, who seems to possess no inconsiderable learning and knowledge of the subject, to have been too severe. The Letters are now published, but between angry polemics no prudent Reviewer will choose to mediate. We have had some experience of their irritable nature, and shall consequently decline interfering any farther.

Observations on a Pamphlet, entitled A State of the Present Form of Government of the Province of Quebec; circulated in London during the last Summer. With an Appendix, containing Information on the Subject. By a Citizen of Quebec. 8vo. 1s. Stockdale. 1790.

Introduction to the Observations made by the Judges of the Court of Common Pleas for the District of Quebec, from the oral and written Testimony adduced upon the Investigation into the past Administration of Justice. Ordered in consequence of an Address to the Legislative Council. 8vo. 1s. Stockdale. 1790.

As in the course of last year we declined giving any opinion on the 'State of the Government of the province of Quebec,' it will be sufficient to announce the publication of these two replies. The second appears the most candid and dispassionate; the first the most shrewd and pointed.

POLITICAL.

Political Miscellanies. By the Author of the *Rolliad* and *Probationary Odes.* 8vo. 2s. 6d. Ridgway. 1790.

Alas! such is the ill success of wit, in these degenerate times, that of the publication of 1787, under this title, 21 pages* only are new. The former are not even reprinted.

An Address to the Public, in which an Answer is given to the principal Objections urged in the House of Commons, by the Right Hon. Frederic Lord North, (now Earl of Guildford) and the Right Hon. William Pitt, against the Repeal of the Test Laws. By a Master of Arts of the University of Oxford. 8vo. 1s. 6d. Johnson. 1791.

This calm and acute Address is intended as a reply to the speeches of lord North and Mr. Pitt. Our author does not add any thing to the force of the former arguments, though he occasionally weakens those employed by the former and present minister. Lord North, he thinks, has misrepresented the language and view of king William, at least Tindal has given a very different account of both; but every party will not consider this as a satisfactory reply.

Observations on the Corn Bill, now depending in Parliament. By John Lord Sheffield. The Second Edition. 8vo. 2s. Debrett. 1791.

In this very able and judicious pamphlet, lord Sheffield reprobates the principle of the corn-bill now pending. As its object is to facilitate importation, and to keep back the price of corn 'at all events,' he thinks it will be ultimately injurious to agriculture. The subject is of great importance, and our author's observations are singularly able and ingenuous. But independent of the delicacy of speaking on a question now under the consideration of the legislature, the particular examination would lead us into more extensive details than we can at present admit of. We have little doubt of meeting with some other publication in which we can with more propriety resume the enquiry.

Debates in the General Assembly of the Church of Scotland, on taking into Consideration an Overture from Jedburgh respecting the Test Act, May 27, 1790. 8vo. 1s. Pridden. 1791.

The general assembly, after many judicious and able speeches on different sides, concluded that the test-act was a grievance, and they seem to wish that 'they were fairly rid of it.' The arguments rested on its being a profanation of religion, and contradictory to the articles of union. The debate seems to have been conducted with equal moderation, ability, and judgment.

The Speech of Major Scott in the House of Commons, on the 14th of February, 1791. 8vo. 1s. Debrett. 1791.

In this Speech major Scott severely censures the conduct of the last house of Commons, with regard to the impeachment of Mr. Hastings; and he makes some very free observations on what has passed on the same subject in the present parliament. The editor has not been backward in contributing his *mite* on the occasion, by a preface which occupies as many pages as the Speech.

A Letter from Major Scott to Philip Francis, Esq. 8vo. 1s. Debrett. 1791.

It may well be imagined, from the names of the parties concerned, that this production relates to the affairs of the East-Indies, and ultimately to the conduct of Mr. Hastings. Major Scott writes, as usual, in the expostulatory strain, intermixing observations and arguments with a detail of transactions in the East. He is still a warm advocate for the late governor-general, whose tedious and expensive trial candour and humanity must induce us to wish were either abandoned, or brought to a speedy decision.

MISCELLANEOUS.

Some Account of the Shrewsbury House of Industry, its Establishment and Regulations; with Hints to those who may have similar Institutions in View. By J. Wood. 8vo. 1s. Longman. 1791.

After maturely considering this 'Account,' we think it in many respects excellent, and deserving imitation in populous manufacturing towns, where the expence of the poor is a serious and increasing evil.

Thoughts on the present Performance of Psalmody in the Established Church of England, addressed to the Clergy. By Edward Miller, Mus. Doct. Cantab. 8vo. 1s. Miller. 1791.

Dr. Miller, with great propriety and good sense, recommends a reformation in the present performance of psalmody. It is undoubtedly a part of the service in which the whole congregation should join; and the simple melody, adapted to every ear and every voice, is only admissible. The Sunday-schools, he justly observes, if the children are properly instructed, may be very serviceable in effecting this reformation.

Viaggiana: or, detached Remarks on the Buildings, Pictures, Statues, Inscriptions, &c. of Ancient and Modern Rome. With Additional Observations. 8vo. 2s. 6d. Faulder. 1790.

We reviewed this work in our XLIII volume, p. 32: it now appears with a new title, and some additional remarks. We shall extract only, from the additions, what relates to the mutilated statues of the Romans, a passage selected in the article referred to.

March, 1791.

B b

‘The

‘ The appearance of these maimed figures brings to our mind the barbarous and cruel policy of Philocles, in Plutarch’s life of Lysander, who advised the Athenians to cut off the right thumb, δεξιὸν αὐλίχειρα, of every prisoner taken in war.’

The new observations are chiefly those which the author’s reading, since the publication of the *Viaggiana*, has suggested.

An Enquiry concerning the Principles of Taste, and of the Origin of our Ideas of Beauty, &c. 8vo. 2s. Jeffry. 1789.

This is a strange, quaint, whimsical performance. If taste at all consist in a perception of what is natural and elegant, the author of the following paragraph, the first in this pamphlet, cannot be allowed to possess true taste.

‘ The mind of man, introspecting itself, seems as it were (in conjunction with the inscrutable principles of nature) placed in the central point of the creation: from whence impelled by her energetic powers, and illumined by her light, the intellectual faculties, like rays, shoot forth in direct tendency to their ultimate point of perfection: and as they advance, each individual mind imperceptibly imbibes the influence and light of each, and is by this imbibition alone enabled to approach it.’

Two letters of Dr. Johnson, the one to lord Hawkesbury, soliciting the life of Dr. Dodd, the other to the unfortunate convict, the day before his execution, are added. They are truly excellent. The distich intended for the collar of the goat, who had been twice round the world with Sir Joseph Banks, we do not remember to have seen before. We suspect it to be misprinted.

Perpetui, ambitâ bis terrâ, præmia lactis
Hæc habet: altrici capra secunda Jovi!

In the work before us it is *Jovis*; and though a second goat, dedicated to *Jupiter Altrix* is not a very classical idea, we can affix no meaning at all to it if we read *Jovis*, without too bold an ellipsis.

The Peerage Directory: containing the Mottos of the Peers of Great Britain and Ireland, alphabetically arranged, and their Supporters described. 12mo. 1s. Debrett. 1791.

An alphabetical list of mottos, with the supporters, and the titles of the noblemen who bear them; the index nearly equaling the substance of this little tract in bulk.

A true and genuine Discovery of Animal Electricity and Magnetism; calculated to detect and overthrow all counterfeit Descriptions of the same. Small 8vo. 2d. Parsons. 1790.

The ‘ science,’ if we may be indulged in using the popular term, is explained more fully in this, than in Mr. Martin’s pamphlet,

phlet, reviewed in our last volume; and the operation (an exception made against it by some of the adepts), more particularly explained. If it were worth while to expose this new folly, our author gives us ample room; for, though weak, he is honest.

The Mystery of Animal Magnetism revealed to the World, containing Philosophical Reflections on the Publication of a Pamphlet entitled, A True and Genuine Discovery of Animal Electricity and Magnetism.
By Samuel Stearns, LL. D. 8vo. 2s. Parsons. 1791.

This pamphlet is founded on the 'true and genuine Discovery,' and by an art peculiarly our author's own, what the modest author sold for a shilling costs, in our author's enlarged form, double the sum. From the pamphlet before us, Dr. Stearns seems to have little right to laugh at the honest author of the 'Discovery,' and ridicules animal magnetism with little success. His list of titles * is somewhat suspicious, and prevents us from paying that attention to his description of the shaking Quakers, which it would otherwise deserve. If we were sure it was genuine, we should think it curious.

A Letter to the Reviewers of the Monthly Review; from Fulke Greville, Esq. Author of Reflection, a Poem, in Four Cantos.
8vo. 1s. 6d. Fiske. 1790.

This poem, of which Mr. Greville avows himself to be the author, was reviewed in our LXXth volume, p. 170. He expresses in the present publication great resentment against the Monthly Reviewers for not having entertained so good an opinion of it as himself, and we are severely censured on the same account.

An Abridgement of the Letter of the Right Hon. Edmund Burke to a Gentleman in Paris, on the Revolution in France. 8vo.
1s. Debrett. 1791.

This is the skeleton of a beautiful figure. It has the form, and something of the substance; but where is the spirit that animates, the grace that delights, the symmetry that charms, and the beauty that fascinates? All these are gone; it is the *caput mortuum* from the crucible; the last sad remains, which remind us only that 'such things were.'

De Morbis quibusdam Commentarii. Auctore Clifton Wintringham, Baronetto, M. D. Tom. II. 8vo. 3s. Cadell. 1791.

Having given so copious an account of the former volume in the LIVth volume of our Journal, p. 110. it is sufficient to ob-

* Samuel Stearns, LL. D. and Doctor of Physic; Astronomer to his Majesty's Provinces of Quebec and New Brunswick; also, to the Commonwealth of Massachusetts, and the State of Vermont, in America.

serve, that this continuation of sir Clifton Wintringham's aphorisms is by no means inferior to the former part. An useful index is subjoined.

A full and correct Report of the great Commercial Cause of Minet and Fector, versus Gibson and Johnson; decided in the House of Lords on Monday the 14th of February, 1791. 8vo. 2s. 6d. Walter. 1791.

This Cause is one of the most important that ever occurred in a court of justice, and is said to have involved property to the amount of upwards of one million. A full report of it, therefore, must prove highly interesting to the commercial world. It is sufficient for us to observe, that the subject of litigation was a bill of exchange payable to John White, or his order; but there existed no specific person who was supposed to be meant by that name. The cause was tried in the court of king's-bench, where a decision was given in favour of the validity of the bill. An appeal, however, being made to the house of lords, the judges were summoned to give their opinion respecting the merits of the question, when nine of them were in favour of the judgment; but the lord chancellor, the chief baron, and Mr. Justice Heath, gave their opinion that it ought to be reversed. The decision of the lords, as might be expected, concurred with the majority of the judges. The case is distinctly related in the present Report, and an adequate account is given of the speeches delivered on both sides.

An Address to his Grace the Archbishop of Canterbury, as a Visitor of Colleges in the University of Oxford, and as Primate of all England. By a Country Clergyman. 4to. 2s. Robins. 1791.

This firm and manly Address relates to some abuses, which, if properly represented, and there are no reasons to suspect our author's accuracy, certainly deserve attention. The first part regards the prostitution of oaths, and some evasions which the acute perceptions of lawyers respecting fellowships and livings have discovered, which almost deserve to be ranked with the ingenious interpretations of lord Peter. The next object of the Country Clergyman is the reformation of the liturgy; and if we could think any reformation at this time expedient, it would be of the kind recommended by our author. He would reject the Athanafian Creed, which, he justly observes, is not connected with the doctrine of the Trinity, but only a scholastic explanation of it, and some of the more obscure or exceptionable passages in the Apostles' or Nicene Creeds. But his index expurgatorius is not sufficiently extensive in these last forms. The other parts of his work relate to residence, commendams, &c. The whole deserves great

great attention, for the manner is equally firm and respectful, the observations accurate and perspicuous.

The Laws of Masters and Servants considered; with Observations on a Bill intended to be offered to Parliament, to prevent the forging and counterfeiting of Certificates of Servants' Characters. To which is added, an Account of a Society formed for the Encrease and Encouragement of good Servants. By J. Huntingford, Gent. 8vo. 2s. Brooke. 1790.

We hope the bill to prevent the forging of characters may succeed, if it does not add to the already too voluminous code of penal statutes. We wish equal success to the society for the increase and encouragement of good servants.

An Enquiry into the Truth of the Tradition concerning the Discovery of America, by Prince Madog ab Owen Gwynedd, about the Year 1170. By John Williams, LL. D. 8vo. 2s. White and Son. 1791.

Dr. Williams revises the old and almost exploded account of Madog's first discovering America, and contends that it was mentioned some years prior to Columbus's voyage. But in the account there are some difficulties, and the mentioning his having left Ireland to the north, leads us to think that 'westward' was an interpolation; for if he sailed from Wales westward, the situation of Ireland could be in no other direction, and it is at least a suspicious pleonasm. It is a little difficult also to explain how Madog, if he once chanced to reach America, could return home, when the knowledge of navigation was so imperfect: that he a second time arrived in America, would be more improbable; but of this there is not the slightest evidence.

The other part of the proof relates to the finding the Welsh language in America. But as this may have happened from many accidents between the first colonization of that continent and the time of the discovery, it does not greatly assist the argument. The Indians might have learnt it from their captives, or from their communication with some back-settlers of that nation. The tribes which are mentioned, as differing from the Americans in general, are not said to resemble the Welsh; but it is too common in this pamphlet to conclude, that if in any instance some foreign appearance or extraction is mentioned, they must be ancient British. This is particularly remarkable when the author speaks of Mexico. Another instance of inconclusive reasoning occurs in p. 51. where from Cæsar's observing that the Gallic *Druïds*, for he is expressly speaking of them, used the Greek letters, our author argues that the ancient Britons employed the same characters.

In fact when, after the lapse of 300 years, the account of the Amer-

American discovery of Madog precedes that of Columbus by about fourteen years ; and this account, preserved so long by tradition, is only published after that event, its authenticity is suspicious. We may believe that Madog left Wales, and discovered another country ; but where that country was must always remain uncertain. If he sailed westward from Wales, the currents would rather have carried him to Nova Scotia than to Virginia.

Remarks on the leading Proofs offered in favour of the Franklinian System of Electricity. By the Rev. John Lyon. 8vo. 2s. Dodslcy. 1791.

Mr. Lyon in some former works has displayed his heresy, or his wishes for reformation. In the pamphlet now before us, he endeavours to show that the doctrines of positive and negative electricity have led the followers of this system into absurdities and inconsistencies. We think we could demonstrate that his experiments may be better explained on Dr. Franklin's hypothesis than on his own, which is at least as gratuitous and not so plausible.

Considerations on two Papers published at Antwerp, respecting a Loan for 3,600,000 Guelders ; to be subscribed at the Houses of Mess. J. E. Werbrouck and C. J. M. de Wolf, of that City. 8vo. 2s. 6d. Stockdale. 1791.

Our author contends, that because the young gentlemen alluded to could not mortgage dutchies and bishoprics, and had no appanages but what depended on the will of their father, a transaction of this kind could not be true. We mean not to contend that it is so ; but granting post obits, annuities, with insurance of lives, &c. are so common, that arguments of this kind are of little avail.

A Short Relation of the River Nile, of its Source and Current ; of its overflowing the Campagna of Egypt, till it runs into the Mediterranean, and of other Curiosities. With a new Preface, written by an Eye-Witness, who lived many Years in the chief Kingdoms of the Abyssine Empire. 8vo. 2s. 6d. Lackington. 1791.

This is the narrative of Father Jeronymo. We had it before us in our review of Mr. Bruce's volumes, but it contains a very small portion of what is in that work. Some suspicious circumstances in his account also occur ; and though we cannot deny that he has seen the fountains of the Nile, there is no reason to suppose Mr. Bruce's description is taken from this ' Short Relation.'

Observations on the Utility of Patents, and on the Sentiments of Lord Kenyon respecting that Subject. Including Free Remarks on Mr. Beetham's Patent Washing Mills. 8vo. 1s. Ridgway. 1791.

These Observations are so ingenious, and notwithstanding the bias

bias which we perceived in the author, and the prejudice occasioned in consequence of it, in our minds, so truly convincing, that we have little doubt of the argument *in favour* of patents resting securely on this ground. The whole seems designed to introduce the patent washing-mill, invented by Mr. Beetham; but we must remark, that equal pressure can only be of service when linen is equally dirty: some inconvenience arises from this cause, though, on the whole, we are convinced of the utility of this invention.

The History and Antiquities of Tewkesbury, from the earliest Periods to the present time. Collected from ancient Records and other authentic Materials. To which is added, some Account of the Medicinal Water near Tewkesbury. 8vo. 3s. Wilkie. 1790.

This little volume contains sufficient, perhaps more than sufficient, information for strangers. It is a concise local history of the town, and one of the most respectable directories that we have seen.

Reflections on the general Utility of Inland Navigation to the commercial and landed Interests of England; with Observations on the intended Canal from Birmingham to Worcester, and some Strictures upon the Opposition given to it by the Proprietors of the Staffordshire Canal. 8vo. 1s. Clarke.

This plan, if it be practicable, will we think be of general utility, and the new canal joining with that of Fazely, will unite the Trent and the Severn. We have said if practicable, because we understand there are some doubts on the subject. Our present author thinks it may be easily effected, but a little sanguine eagerness is allowable in a work like this before us.

A Short Review of the Trade of the East India Company, between the Years 1785 and 1790; taken from Papers laid before the House of Commons during the two last Sessions of Parliament. By a Proprietor. 4to. 2s. Debrett. 1791.

We have been long since aware, and it is probably no secret, that the balance of trade to India is against the Company, and that the deficiency is supplied by the territorial revenue. The loss in five years, from the accounts presented to parliament, in our author's statement, is 1,302,704l. In a national view, this undoubtedly is compensated by shipping duties and exports; and in other views, by some inexplicable means. But as this Review is preparatory to the renewal of the charter, it is consequently a piece of machinery too complicated for our comprehension, or too delicate for our explanation.

The Confessions of J. J. Rousseau, Citizen of Geneva. Part the First.
To which are added, the Reveries of a Solitary Walker. Translated from the French. 2nd Edit. 2 Vols. 12mo. 6s. Robinsons. 1790.

We found the first translation so faulty, that it is with pleasure we see the work again undertaken by some more competent author. Our present translator has executed his task with accuracy and fidelity; but to translate Rousseau is a labour of difficulty, it is bending the bow of Ulysses, which few weaker hands can perform. The author of the present version errs in some minuter points, and sometimes loses the spirit of the original in his translation. Of the latter error, as it depends more on feeling than reason, we can give no instance. Of the former we may mention one example. In some of the first pages, *sur la Treille* is translated on the banks of the Treille. There is no such river in the universe: the Treille, as any map of Geneva will show, is a public garden in the vicinity of the city, the Vauxhall of the Genevois.

The Confessions of J. J. Rousseau, Citizen of Geneva. Part the Second.
To which is added, a New Collection of Letters from the Author. Translated from the French. 3 Vols. 12mo. 10s. 6d. Robinsons. 1790.

The translation of this part seems to have been executed by the author of the new and improved version we have just mentioned. As we have examined the work in the original, we need not again enlarge on it: and as we have attempted to translate some passages, we can with more confidence commend the present translator, who has succeeded well in a task that we found, from our trial, was not an easy one.

C O R R E S P O N D E N C E.

WE have received Meteor's letter, informing us that the opinion we mentioned as new, in our review of Dr. Cassan's Memoir, respecting the proportion of different degrees of heat, was taught twenty years since by Dr. Russell at Edinburgh. On recollection, we find it has been mentioned by some authors; but it escaped us at that time, and we suspect the distinction is not generally known. We are not aware that it has occurred in our Journal.

WHAT we observed, in Mr. Halloran's Poems, on the defect of his education, arose from a suggestion in his own work. We are happy to be informed by an Anonymous Correspondent, that this suggestion relates only to his early poems. He is at present, we find, a very good Latin scholar, and instructs boys with great success. If our remark has done him any injury, we shall be sincerely sorry for it.

WE are much obliged to C. S. for his intelligence: if he has no objection, we may publish the more material parts of his Letter in our next Number.